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FARM STRUCTURE POLICIES IN OECD COUNTRIES OUTSIDE THE UNITED STATES

by

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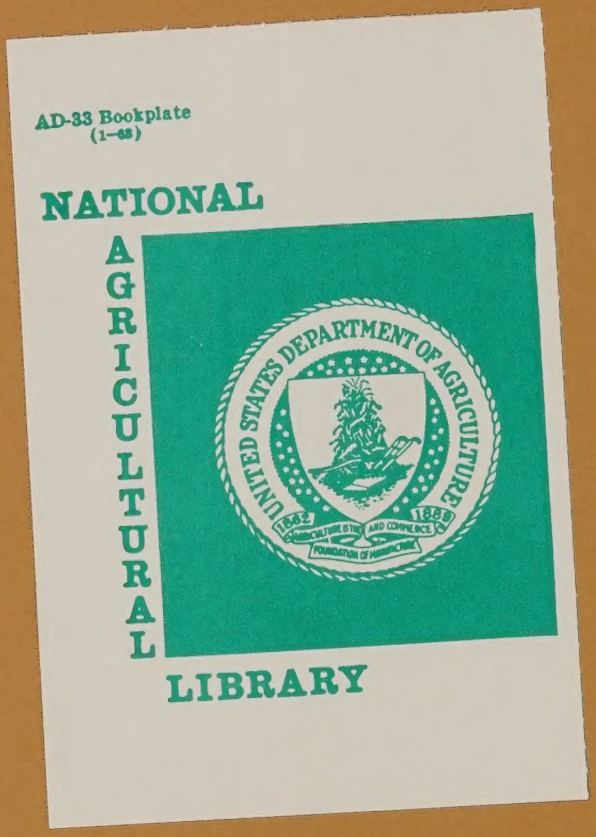

FARM STRUCTURE POLICIES IN OECD COUNTRIES OUTSIDE THE UNITED STATES

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ABSTRACT

The report focuses on policy measures which have a bearing on farm structure in member countries, other than the United States, of the Organization for Economic Cooperation and Development. The most extensive coverage is given to members of the European Economic Community, other Western European countries, and Japan. Specific structural measures are examined but the report recognizes that a country's agriculture also reflects the impacts of other policy measures as well as prevailing market forces. Thus, an array of economic, agricultural, social, environmental, and development measures are reviewed and examined in a context of their relationship to agriculture structure. (Research by Earth Resources Research, Limited.)

Key words: Agriculture policy, structure and organization, rural development, European Economic Community, Organization for Economic Cooperation and Development

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TABLE OF CONTENTS

Page

TABLES

DEFINITIONS

OECD--Organization for Economic Cooperation and Development. Member countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States of America, and West Germany.

EC--European Economic Community. An economic and custom union of Western European countries based on the 1957 Treaty of Rome. The original membership of Belgium, France, Italy, Luxembourg, Netherlands and West Germany expanded to include Denmark, Ireland and the United Kingdom in 1973 and Greece in 1981.

CAP--Common Agriculture Policy of the EC.

EUA--European Unit of Account. One of several standards of value used by the EC for measuring monetary budget transactions prior to April 1979. Its value was determined from a weighted basket of member country currencies and announced daily in national currencies and the U.S. dollar. The average value of 1 EUA was $1.14112 in 1977 and $1.22434 in 1978.

Measures--The metric system is the conventional system of measurement used in most of the OECD countries referred to in this report. Conversions to the U.S. system are as follows: 1 hectare equals 2.471 acres; 1 metric ton, 2204.6 pounds; 1 kilogram, 2.2046 pounds; 1 liter, 1.0567 quarts; and 1 hectoliter, 26.418 gallons.

INTRODUCTION

This report provides a brief and highly selective review of recent developments in structural policy in OECD countries outside North America. It focuses on Japan and the EC, Scandinavian and Australasian countries. Policies in these countries appear to be the most innovative, and conditions bear some similarities to those found in the United States. In Southern Europe, a high proportion of the labor force remains on the land and the process of "adjustment" has had a less profound impact on traditional agrarian societies. In these countries, policies are principally concerned with land consolidation, irrigation, and the improvement of tenure arrangements.

This review expands on information on agricultural structure policies and measures of other countries contained in the publication, Structure Issues of American Agriculture (1). A principal source of information of agriculture structure policies at the international level is the Organization for Economic Cooperation and Development (OECD), particularly its Review of Agricultural Policies 1979, (2). The discussion of policy in this report is selective and does not attempt to duplicate OECD efforts, which are a valuable guide to developments in the OECD as a whole.

It is difficult to assess the impact of individual structural policies because of lack of published data or critical analyses. Government departments which are uniquely placed for the evaluation of individual structural measures, have often been slow to adopt policy monitoring and evaluation procedures and this may explain the unimpressive results which appear to characterize structural policy measures.

A GENERAL VIEW

The nature, size, and importance of the agricultural sector varies enormously between OECD countries,, but almost everywhere farming is provided with substantial state aid, generally accompanied by a small armory of policy measures and associated institutions. In most cases, government intervention is aimed at supporting desired levels of agricultural output and farm incomes, and makes some attempt to modify and cushion the rural transition from broadly self-sufficient agrarian communities to functional sub-units in a highly integrated agro-food sector. This transition is propelled mainly by market forces, and while some government measures, such as land consolidation schemes, accelerate change, others, such as generous price support policies, may delay it. Although structural policies are generally intended to improve the balance between land, labor and capital, the aim is not simply to achieve the most "efficient" structure. "Efficiency" is balanced against other goals, such as; food security, regional balance, reasonable income for producers, bolstering of border areas, maintenance of rural employment, retention of the "farm vote", and preservation of the environment. Some of these goals are often ill-defined and not always articulated, but their role in policy making is becoming increasingly explicit. The process of identifying the desired balance and then forming appropriate policies clearly takes a different form in each country.

The most striking difference between farm structures in the United Stats and in most other OECD countries is in farm size. Most European farms

remain extremely small by U.S. standards, although there is considerable variation between countries and regions (see Table 1). Employment in the agricultural sector fell by about one-sixth in both North America and OECD Europe between 1967 and 1977, yet by the end of the period, agriculture accounted for 3.9 percent of civilian employment in North America and 15.7 percent in OECD Europe. (2) Although farm structures diverge markedly, the rate and direction of change decline in number of farms and increase in average size surprisingly similar.

In many countries the pressure for government intervention arises from much the same sources. Some of these are:

1) Changes in the world market and the expansion of the European Community (EC).
2) The persistence of surpluses in certain sectors, such as dairy and sugar.
3) Power of the farm lobbies and the farm vote.
4) Closer integration of agriculture within the agro-food system as a whole.
5) Growing demand for recreational facilities.
6) Increased awareness of environmental problems and the growing power of environmental organizations.
7) Rapid rate of technical change in agriculture.
8) Greater intensification and specialization in agriculture, leading to regional imbalances.
9) Desire to raise rural incomes to urban levels and improve welfare provisions in society as a whole.
10) Changes in the structure of the workforce and the emergence of structural unemployment in the industrial sector and in some rural areas.
11) Increasing dependence of agriculture on outside capital.
12) Inflation.
13) Growth of urban land-take and the growing importance of land-use planning.
14) Desire to increase forest cover and reduce dependence on oil and imported fuels.
15) Heightened appreciation of rural problems.
16) In the most affluent OECD countries, the tentative emergence of "post-industrial values", linked to a traditional interest in access to land.
17) Acquisition of land by non-traditional owners, such as: institutions, foreigners, and commercial companies.
18) Recession, often accompanied by pressure to control or reduce agricultural budgets.
19) Growth of the consumer lobby.

These conditions are not present everywhere and vary enormously in strength, but it is notable that a broader range of interests are acquiring a stake in farm policy decisions. This is reflected in the expanded range of policy instruments now being used and the growing importance being attached to selective measures and integrated rural policies. However, many of the newer and more experimental policies are still in the process of evolution and they

Table 1--Average utilizable agricultural area of full-time EC farms by country and region of countries, 1975

Location	Hectares	Location	Hectares
EC	26	Italy	11
W. Germany	21	Piemonte	10
Schleswig-Holstein	38	Valle d'Aosta	10
Lower Saxony	30	Lombardia	15
North-Rhine-Westfalia	22	Veneto	7
Hesse	21	Fruilui-Venezia Giulia	8
Rhineland-Palatinate	16	Liguria	3
Baden-Wuerttemberg	16	Emilia-Romagna	10
Bavaria	18	Toscana	9
Saarland	26	Umbria	10
Hamburg, Bremen, Berlin	10	Marche	8
France	31	Lazio	10
Ile de France	55	Abruzzi	6
Champagne-Ardernee	66	Molise	11
Picardie	56	Campagnia	5
Haute-Normandie	40	Puglia	17
Centre	49	Basilicata	17
Basse-Normandie	26	Calabria	11
Bourgogne	47	Sicilia	15
Nord-Pas-de-Calais	27	Sardegna	39
Lorraine	51	Trentin Alto Adige	6
Alsace	19	United Kingdom	58
Franche-Comte	37	Northern	76
Pays de la Loire	27	East Midlands	59
Bretange	20	West Midlands	48
Poitou-Charentes	33	Eastern	52
Aquitaine	22	South East	54
Midi-Pyrenees	29	Wales	50
Limousin	30	Scotland	134
Rhone-Alpes	21	Northern Ireland	30
Auvergne	33	Ireland	27
Langedoc	24	Denmark	27
Provence-Alpes-Cote d'Asur	17		
Le Corse	34		
Netherlands	15		
Belgium	16		
Luxembourg	28		

Source: EC Commission: Answer to a written question in the European Parliament, Quoted in Green Europe, April 1980.

have not dislodged the established policies which are more narrowly focused on the scale and mix of agricultural factors.

The OECD defines the "most commonly found concepts and policy objectives" as follows:

- Establishment of "viable" farms providing full-time employment for one to two people and capable of achieving a return on resources comparable to that obtained in non-agricultural activities in the countries or regions concerned.
- Improvement of physical shape and working conditions on holdings, in order to provide more rational use of resources and more specifically easing the hardship of farm work.
- Integration of agricultural structural adjustment into the overall national or regional development processes.
- The maintenance of the traditional "atmosphere" of the countryside in such a way that the quality of life for neither those working in the country nor those visiting it in leisure time should be impared. (4)

These objectives are still paramount, but are increasingly placed in a wider context. For example, nutritional and environmental policies now have a bearing on structural issues in some countries. High land prices and the growing importance of non-farm capital have caused considerable concern and many countries have introduced new policy measures or instituted a review of present arrangements. Often it has been difficult for farmers to utilize the increased value of their land and new entrants have been faced with the prospect of heavy borrowing in order to purchase increasingly large and expensive holdings. These circumstances have provided an environment for outsiders, especially banks, to acquire a greater financial stake in agriculture. In cases where outsiders, such as foreigners, financial institutions or companies have entered the land market, there has been considerable hostility from the farming community and in several countries recent legislation has restricted the purchase of agricultural land, usually reserving it for those with farming skills. With rising unemployment and the contraction of job opportunities in urban areas, there has been some deceleration in the exodus from the land and a growing interest in employment maintenance, training schemes and special regional aids. Taken together, these trends suggest that structural policies are becoming increasingly concerned with the deployment of capital and labor, with rather less emphasis on the size and spatial characteristics of farms. Supply control measures, such as deficiency payments, export restitutions, and quotas are likely to have an increasing impact on farm structures, especially in EC countries and Japan where small farmers have been protected by high prices and import restrictions and are able to effectively resist any substantial cuts in support prices. It should be noted that such measures as levies, deficiency payments, and conversion schemes can be tailored to give small or disadvantaged farmers special terms or concessions. Switzerland provides an extreme example of this trend, where the need to control output seems to have been an important factor in the introduction of size limits for livestock farms.

In most OECD countries the objective of reforming farm structures has been modified by the desire to increase agricultural output and self-sufficiency, pacify the farm vote and prevent rural incomes from reaching a disastrously low level. Almost everywhere the number of farms has declined--typically at around 2 to 3 percent a year in the 1970s. A more rapid exodus probably has been thwarted by a mixture of high prices, protected markets, aids and subsidies and the strength of traditional tenure patterns. High support prices have played a key role, often being accepted politically because of the desire to strengthen agricultural output and underpin often inadequate low farm incomes. In the 1970s, enthusiasm for greater self-sufficiency stiffened support for high prices, but the recent growth of surpluses in certain commodities has necessitated a reassessment of this trend. Since it is often difficult to cut prices sufficiently to control surpluses, policy-makers have been examining the alternatives. On the one hand there are attempts to increase consumption or find inexpensive ways of disposing of surpluses. On the other hand, there has been greater interest in supply control and structural measures. The difficulties engendered by the use of high support prices to protect traditional farm structures have become a central issue of agricultural policy as illustrated by EC and Japanese experience. Norway and Denmark provide examples of the difficulties and conflicts that can be encountered in introducing new policies.

Another area of interest is the rise of part-time farming, which illustrates the point that some major structural changes occur largely independently of government structure policy.

Before proceeding to an examination of specific policy areas, it is worth noting that there appears to be considerable disagreement about the most efficient farm size and optimum mixture of land, labor and capital. In Britain, for example, it has generally been assumed that the relatively large farm structure (81 percent of farmland in holdings of over 50 hectares in 1975, as opposed to 17 percent in West Germany, 12 percent in the Netherlands, 41 percent in France and 42 percent in the EC as a whole) (5), gave the nation's agriculture a considerable advantage in terms of efficiency. This has been thrown into doubt by a study undertaken by the Centre for Agricultural Strategy at Reading, which, among other things, attempted to compare the physical productivity of agriculture in the nine EC countries. (6) Measuring expenditure on inputs and the value of off-farm sales by means of a common set of prices, they arrived at the results shown in Table 2. Country comparisons of this kind are fraught with difficulties, but at the very least the results suggest that Belgium and the Netherlands have adjusted successfully to a small farm structure, while the claim that Britain is the most efficient producer needs more rigorous examination. Although they were critical of the report, the British National Farmers' Union did concede that Ireland was the lowest-cost milk producer in the Community, with the United Kingdom "second or third" (7). In 1977, the average dairy herd consisted of 46.2 cows in the United Kingdom and 12.4 in Ireland. (5).

Evidence from the United Kingdom suggests that although small farms tend to be less efficient than those in the medium-sized category, those in the large-size group do not appear to be any more efficient than those in the middle range. In 1975, farms employing 14 people or more (corresponding to an average size of around 450 hectares) produced about 21 percent of total UK

Table 2--Comparative physical productivity of agriculture in EC countries, average 1973-77 1/

Country	Net output ratio 2/			Rank		
	United Kingdom	Nether-lands	France	United Kingdom	Nether-lands	France
West Germany	.62	.46	.76	8	7	8
France	.78	.61	1.11	5	5	3
Italy	.63	.43	.88	7	8	7
Netherlands	1.05	.86	1.26	2	2	2
Belgium/ Luxembourg	1.21	.99	1.51	1	1	1
Denmark	.97	.71	1.00	3	3	4
Ireland	.71	.52	.99	6	6	5
United Kingdom	.87	.63	.92	4	4	6

1/ At constant 1973 prices.

2/ The net output ratio reflects net output value in British pounds per each pound of input costs. Net output value is calculated separately for the United Kingdom, Netherlands and France by substracting imput costs for land, labor and capital from the value of gross off-farm sales with both input and output values based on the relative prices prevailing in each of three countries during 1973-77 and converting to British pounds..

Source: The Centre for Agricultural Strategy, The Efficiency of British Agriculture, Reading, 1980.

output. According to Britton and Hill who studied data collected in 1968-73, "these are no grounds to support the argument that these farms are on average more efficient than medium-sized farms". (8) The same authors examined the link between efficiency and type of tenure in the United Kingdom. On the basis of the data examined, they concluded that "at the lower end of the size spectrum, the efficiency ratio (value of output per 100 of total inputs) of rented farms was higher in the period 1968-73 than that of owner-occupied farms, with pronounced differences occurring in the 50-100 acre size group." (8)

RURAL, REGIONAL AND ASSOCIATED POLICIES

Farm support and structural measures have always been an important element in government policy for rural areas. With agriculture traditionally responsible for a large proportion of rural employment, there has been a close link between farm incomes and the health of the rural economy. Traditionally, structural policies have aimed to amalgamate and consolidate farms, promote larger and more economically viable holdings, encourage modernization and raise productivity, and in the process release surplus labor for other sectors of the economy. This is still the main thrust of policy, but it is increasingly tempered by caution and a growing understanding of the special problems of rural areas. In nearly every OECD country farming has become more concentrated in regions favored by topography, climate, and the proximity of markets. In the less favored, mountainous and remote regions, the result has been relatively depressed incomes, followed by depopulation and the abandonment of farms in some cases. In certain areas, such as the lower slopes of the Alps, this has led to environmental degradation, soil erosion and the decline of long-established communities. Since poor and remote regions are unlikely to attract industrial investment and suffer from a relative lack of services, there is a tendency for young people to leave, giving rise to an unbalanced age structure and impoverished communities.

In the more prosperous farming areas, typically on the lowlands and in river valleys, rural problems may be less acute but are increasingly recognized as relevant to structural policy. Mechanization has reduced job opportunities and altered the structure of communities. Many rural areas are becoming dependent on urban capital as well as urban settlers such as commuters and the retired. Intensification is often associated with environmental degradation and landscape deterioration and in northern Europe there is growing opposition to large, intensive livestock farms. Urban fringe areas have their own particular problems, which include high land prices, fragmentation and vandalism. Unemployment in urban areas has caused a reappraisal of the ability of the economy to absorb a further influx of rural labor and led to increased efforts to create new employment in predominantly farming regions. For their part, farmers are more reluctant to leave the land and to abandon the security it represents, consequently reducing the effectiveness of structural measures designed to increase the mobility of land and labor.

Conditions vary enormously between OECD countries, but there is a growing tendency to perceive agriculture as a permanent and indispensible source of work and stability for many rural communities. Although agriculture now employs less than 3 percent of the total labor force in Britain, it seems

unlikely that other OECD countries in Europe will reduce their farm populations to the same degree. In Europe, German and Scandinavian employment in the industrial sector is unlikely to expand and there is no call for further urban migration. Unless local employment is available in other sectors there is clearly a need to relate structural policies to settlement patterns.

> "In some of the newer countrysides, such as North America and Australasia...efficient large-scale agriculture with fewer people employed, flourishes unemcumbered by the rural settlement pattern developed for the circumstances of the times before the invention of the internal combustion engine. In the old-established and more closely settled rural economies of Europe, the new agricultural systems exist uneasily in and around an age-old and rather close settlement pattern, developed for the centuries when rural people and rural products travelled at walking pace, or, at the fastest by light horsedrawn vehicles." (9)

To summarize, structural policies are slowly becoming more sensitive to the social, economic and environmental conditions found in different rural areas. This is shown in the growing interest in selective policies, regional policies and schemes to introduce new industries into rural areas. In some countries, especially in Northern Europe, special aids for small farms are increasingly common and in a few cases the creation of large farm units is discouraged. The central goal of more efficient resources use has acquired a new complexion.

Rural Income and Employment Policies

Many different policies fall within this broad category, including those developed for particular regions as well as for rural areas as a whole. The type of policy measures which are implemented depend very much on the conditions prevailing in a particular country or region. A brief review of some of the policy incentives which have been tried will illustrate the diversity of conditions and responses.

In West Germany, farm incomes have received a high priority and there has been a consensus among all major political parties that rural incomes should be at the same level as urban incomes. This general policy has been effectively pursued on several different fronts. Excessive concentration of industry in large towns has been avoided and the government has taken steps to ensure that a relatively high proportion of industry is dispersed in predominantly rural areas. This has permitted the growth of part-time farming which has received positive aid from government, in contrast to most other countries. At the same time, Germany's traditionally high price levels, especially for grain, have been maintained to some degree in spite of the Common Agricultural Policy (CAP). At the time of this review farm gate prices were still the highest in the Community as a result of the 'green money' policy. In addition to federal efforts, each of the Landers sets its own priorities and conceives its own rural development programs, designed to maintain parity between urban and rural incomes. This determined and comprehensive policy has been highly successful in maintaining rural incomes and preventing significant depopulation, let alone dereliction or

abandonment. Agriculture still provides about 6.5 percent of total employment, and more than half the farms are part-time. This polcy relies on a relatively high level of food prices and substantial income transfers to rural areas. This has proved acceptable in Germany, both for historic reasons and because of the general strength of the economy--but the approach may not be applicable elsewhere. Furthermore, the level of support has driven up land prices and led to an unjustifiable level of investment in machinery and other equipment, which is not always effectively utilized on small holdings. Not surprisingly, the high price levels have led to surplus production, especially in the dairy sector. Nonetheless, the achievements of the policy are unusual and should not be underestimated; it is probably not a coincidence that Germany has a better age structure among farmers than most other EC countries.

The predominance of part-time farming in Japan arises from a somewhat similar determination by agricultural policy makers to preserve the small farm structure and the dense network of villages and hamlets. This has been achieved by encouraging intensive farming in combination with alternative sources of employment. Aid for rural areas has taken many forms, but the high support price for rice has been an instrument of central importance. (The difficulties arising from this policy are discussed in the section on price policy). Although highly successful in maintaining agricultural employment, the policy has engendered a predictable range of structural problems, said to include an elderly farming population, increasing numbers of part-timers, highly immobile farmland and unsatisfactory land utilization. (2). The new Structural Improvement Promotion Program first implemented in 1979 is intended to attack these problems with a 500 billion yen budget. Designed to last five years, the program is concerned less with individual farms than with the modernization and development of all the holdings within a given area. The aim is to set up viable agricultural communities working within an overall plan, which includes land consolidation, diverting land from the production of rice to other grains, introducing further mechanization and improving the community infrastructure (2).

In Norway, agricultural policy is integrated with social and regional policies to an unusual degree. As in Germany, parity between farming and nonfarming incomes is a central principle and this was first attained in 1979, three years earlier than the target. (2). Farming conditions in much of the country are exceptionally inhospitable and policy makers have devised elaborate incentives to encourage the survival of small livestock farms, the backbone of Norwegian agriculture. Many of these are to be found in small and frequently remote areas of grassland scattered over the largely mountainous northern regions of the country. In order to avoid the cessation of farming and the collapse of small communities, a regionally differentiated price regime is in force, backed up by other incentives, such as, grants, subsidies, generous welfare payments, and holiday relief. A complex system of efficiency standards and nominal labor inputs has been developed so that in poorer areas fewer cows are needed to earn the same income as in fertile zones. A small farmer in the north may earn 25 percent more per liter of milk than a farmer on fertile ground near Oslo, although the latter is likely to have about 20 cows, as opposed to 10-15 in the north.

Nationally the average farm size remains about 8 hectares, but attempts are being made to expand the smaller units, for example, by reclaiming an

extra million hectares of currently disused land. Self-sufficiency is being raised, grain production is heavily subsidized and farmers are encouraged to integrate their operations with forestry wherever possible (10). The policy has achieved some success in maintaining the farm population in the north and preserving the small farm structure, but at the cost of high food prices, dairy surpluses and substantial subsidies. The quality of life has improved for all farmers, but it might have been preferable to make more use of direct income payments and reduce the role of price incentives.

By contrast, Italy is an example of a country where agricultural and regional policies have not proved adequate to raise farm incomes to a realistic level or to provide sufficient alternative employment. Although regional policy in Italy has a large rural element, agrarian reform and development have not been given a sufficiently high priority. For example, the major agency for developing the largely arid south, the Cassa per il Mezzogiorno, has concentrated on road building and large industrial investments but has contributed little to agricultural infrastructure or farm development. The result is continuing poverty and under-employment existing side by side with a growing deficit in foodstuffs, especially meat. Italy's first overall agricultural plan since World War II emerged in 1977 but by mid-1979 important sections were still missing.

Experience in most OECD countries suggests that it is not easy to develop sensitive and cost-effective policies for assisting poorer regions, especially in cases where production costs are high and farms are concentrated in sectors where over-production is a recurring problem. The current pattern is for the smaller countries of northern Europe to experiment with new schemes, which often combine elements of regional, structural and supply control policies. These schemes frequently entail generous subsidies which may not be replicable on a large scale. Also, it is notable that they are mostly oriented towards improving conditions for small farmers and disadvantaged areas. Special price supports and subsidies are a common feature, but there is increasing interest in direct income payments, which are not linked to a farmer's output.

In Belgium, the government is attempting to stem the flow from the land now that agriculture accounts for less than 3 percent of the working population. This involves increased incentives for improving output and the introduction of an integrated development program for the Luxembourg region in the Southeast. (2) Further support for the family farm came from a recent Private Bill designed to encourage this form of agriculture by aiding cooperation between producers and improving relations between tenants and landowners. In Sweden, small dairy and pig farmers are eligible for special aid, including monthly lump sums for dairy farmers and an annual lump sum for pork producers. (2) In Switzerland, mountain farmers are subject to relatively liberal quotas for milk production; size limits for livestock farms are being introduced, and direct income payments based on total farm area are being considered. In Austria, the position is somewhat similar, with a second special mountain farmers' program now in operation. This involves direct payments and special subsidies, with a budget of 4 billion schillings 1/ for the period 1979-82 (2). At the same time the border regions are to benefit

1/ The average exchange rate in Austrian schillings per U.S. dollar was 12.431 in 1979.

from a strengthened agricultural development program orientated towards "viable" farms. The package includes concessional credit, the improvement of rural infrastructure and job promotion schemes. (2).

Turning to the EC, it is increasingly clear that the major instrument of assistance for mountain and less favored areas, Directive 75/268/EEC, is applied unevenly by different member countries and has not achieved as much as was hoped. The Directive permits aid for designated areas which may be; (a), mountain areas (Article 3.3); (b), less-favored areas in danger of depopulation where natural handicaps such as poor soil impede production (Article 3.4) or; (c) other less-favored areas suffering from specific handicaps (Article 3.5). These include areas where farming is constrained by environmental regulations, areas where the maintenance of agriculture is important for recreational or landscape reasons and areas where farms help to protect the coastline.

In practice, designation has been as follows:

Belgium	350,000 hectares.
Denmark	None
France	35% of total agricultural land
West Germany	30% of total agricultural land
Ireland	50% of total agricultural land
Italy	40% of total agricultural land
Luxembourg	Nearly all agricultural land
Netherlands	A few small areas (under Article 3.5)
United Kingdom	42% of agricultural land (12)

Article 3.5 has not been used very extensively and in the United Kingdom, which is a major beneficiary of the scheme, neither Article 3.3 or Article 3.5 have been used at all--a fact which has given rise to some criticism. (12). Altogether, designated areas cover a total of 34 million hectares more than a third of the EC's agricultural land. (5).

One-sixth of the Community's milk herd are to be found within this region, and dairy farms are among the chief beneficiaries of the three types of aid measures permitted. These are: the award of annual payments for permanent natural handicaps; investment aids for farms suitable for development; and aids for joint investment schemes.

Support of this kind has been critical to the survival of many hill farms in the United Kingdom, but of less importance in most other countries. Regional imbalances have continued to be severe in Italy and France. In 1978, the latest available year, farm incomes in Lombardia region of Italy were, on average, three times those in Moise. Incomes in d'Aosta, Calabria and Basilicata were consistently little higher than those in Moise over the period 1971-78 and there were few signs of improvement. In France, the spread of incomes is even greater. In 1978, farm incomes in Limousin were one-sixth of those obtained in Ile de France. Limousin, Basse-Normandie, Midi-Pyrenees and Auvergne were at the bottom of the income table throughout the 1970's. (5).

The Commission itself concedes the limited effectiveness of its structural measures and has made several proposals for change. There is now an increased emphasis on specific regional schemes tailor-made for the

condition found in individual areas. In June 1980, for example, special schemes were approved for Greenland and the West of Ireland. The former involves 16.4 million European Units of Account 2/ (EUA) for the development of sheep farming and the latter is an infrastructure improvement expected to last 10 years, with an EC contribution of 224 million EUA. (13) Other areas, particularly in Italy, have already benefited from special schemes of this kind and more are planned, including one for Northern Ireland. In June 1980, Directive 268 was strengthened by a 60 percent increase in the maximum headage payment allowable for livestock in the designated areas. The new figure is 80 EUA per animal. In addition, the minimum size limit for eligible farms in the Mezzogiorno and French Overseas Territories has dropped from 3 hectares to 2 hectares (13). This will help many of the poorest farmers but will probably further slow the process of amalgamation of very small holdings.

In conclusion, it is worth noting two points. First, the EC Commission is becoming increasingly interested in integrated rural development schemes. Second, they have concluded that additional aid for less favored regions is still required on a large scale and that "if farming is to continue in these areas, the brunt of adjusting production to demand (for example, in the milk sector) will have to be borne by other regions of the Community." (5)

In the following section, some integrated development schemes, which may offer a means of overcoming some of the failings which have plagued conventional regional and rural policies in industrialized countries are briefly examined.

Integrated Rural Development

One of the main failings of structural policy has been an excessive emphasis on increasing farm size without taking sufficient account of the availability of alternative forms of employment or the broader social and economic needs of predominantly rural areas. In the least favored areas of France and Italy, small farmers have often resisted amalgamation because alternative sources of income have not been available, the tradition of land holding is extremely strong and land has represented a form of security even if it is not utilized for agriculture. Many small farmers have abandoned their holdings rather than sell them. In such circumstances, there is a is tendency to strengthen conventional measures for making farms more viable by supplementing consolidation, amalgamation and retirement incentives with special investment aids, direct income payments, headage payments, favorable product prices and other incentives. Some success has been realized by this approach in Scandinavia. However, several difficulties are evident. Intensive support of the kind developed in Norway and Switzerland for example, may be too expensive to implement over large regions such as the South of Italy. Special aids may prevent desirable change, for example by institutionalizing an inherently undesirable structure. An excessively protected structure will be vulnerable to political or market changes, as shown by the example of French sheep producers in the Limousin area. Their

2/ The European Unit of Account (EUA) is used as a standard value by the EC for transactions under the CAP. Its value in relation to the dollar is announced daily. In 1979 the average exchange rate was .7194 EUAs per U.S. dollar.

farm structure and production system had become dependent on a high price level which was politically difficult to sustain after the British entry into the EC. The livelihood of most of the sheep-producing sector was put at risk by the threat of large UK and New Zealand imports which might have followed from the introduction to a "sheepmeat regime" within the CAP. The intensification of production in disadvantaged areas may be undesirable for one of a number of reasons. For example, it may require large capital sums which could be more usefully employed elsewhere and may burden farmers with an insupportble debt or may add to the over-supply of a particular product, such as milk. Environmental factors may also argue against intensification, expecially in areas of landscape or conservation value. In the United Kingdom, headage payments for livestock grazed on fields at an altitude of above 800 feet has led to "subsidy farming", with farmers attempting to maximize the number of eligible animals, leading to over-grazing and other undesirable management practices. By concentrating subsidies on agricultural production, other forms of activity and more appropriate land uses may be discouraged. This is a common criticism of British upland policy which is based on headage payments and other subsidies, mostly within the umbrella of Directive 268. (14) These subsidies raise the price of land and inhibit the development of forestry and the scheduling of land for conservation purposes. Investment aids and price subsidies often lead to specialized forms of production which may be inflexible and vulnerable to changes in demand. Specialized sheep farms are a case in point.

In disadvantaged rural areas it is often insufficient and inappropriate to channel all government aid through agriculture. In many such areas there is a lack of alternative or part-time sources of work. Social facilities are often poor, and services, both public and private, are sub-standard or declining. Retail prices are likely to be high and incomes substantially below average. Communities are often scattered and ill-served by public transport and in many cases a skewed age structure develops, which itself is a disincentive to young people who would like to stay. It is generally not possible to tackle these interrelated problems in disadvantaged regions solely by enhancing the incomes of farmers, many of whom remain "marginal". Integrated rural development aims to take account of the particular complexity and interrelationship of problems in rural areas across the whole range of policy making (12), seeking a coherent set of solutions which embrace agricultural as well as non-agricultural affairs. Such an approach seems particularly appropriate in less favored regions, but is not wholly new. In parts of northern Europe there have been vigorous attempts to link farming and forestry more closely and in Finland and Sweden almost a quarter of all forestry is fully integrated with agriculture. (15)

At a recent seminar on disadvantaged rural Europe, some of the benefits and disadvantages of linking agriculture and forestry more closely were covered in the following discussion:

> "One principal advantage of an integrated approach is that it helps to spread employment throughout the year rather than to be concentrated in peak periods. Another is that if resident farmers are to undertake the planting, management and felling of forests, surpluses accrue and are more likely to be reinvested locally. This is very much less certain when the operations are carried out by the state or by non-resident

financial institutions or investors seeking to rearrange their affairs advantageously, particularly in the United Kingdom where forestry receives substantial fiscal incentives. There is evidence from Finland that despite the gains made in achieving integration, it is breaking down because of the introduction of specialist foresters and sophisticated machinery. This is having serious consequences for local employment, as it has done elsewhere.

The cost and long maturation period of forests has meant that more reafforestation programs are financed and controlled by governments with compulsory land purchase, or long lasting arrangements with land owners. Rapid inflation has increased the cost of planting, further detracting from the willingness of farmers to contemplate introducing a long-term investment like forestry, on any significant scale." (15)

Integrated schemes of different kinds have recently been introduced in several different parts of Europe, mainly in disadvantaged regions. For example, in Austria a series of general development programs have been implemented in the border regions, supplemented by a parallel regional agricultural program which covers electrification, community projects, and job promotion schemes, as well as concessional credit for farmers. On a national scale, both Spain and Portugal have embarked on ambitious program of rural development designed to transform the agrarian sector. The Spanish scheme, announced in 1979, combines a comprehensive reform of agriculture (covering land, production, marketing co-ops, finance, and social question) with a set of related measures designed to improve the quality of life in rural areas. The measures relate to farm incomes, the development of agro-food industries, improvements in the quality of agro-food products, the development of biomass crops in arid areas, and special incentives for disadvantaged areas.

The EC Commission has proposed integrated development programs for three specific regions--the province of Luxembourg in south-east Belgium, the department of Lozere in south-west France and the Western Isles of Scotland. The proposal is that funds should be available from a mixture of Community sources, the European Agriculture Guidance and Guarantee Fund (EAGGF), the Regional Fund and the Social Fund and national sources in order to finance a combination of non-agricultural and agricultural projects where this is deemed appropriate. Hotel, holiday and leisure activities, crafts and the food industry are picked out as examples of the type of rural industry which might be suitable for aid under the scheme. To date the proposals make specific suggestions solely for the agricultural aspects of the program. Expenditures by the Regional and Social Funds would be required for the off-farm elements. The agricultural proposals for Lozere and the Western Isles are modest, each involving 15 million EUAs over five years. The proposal for Luxembourg province amounts to only 3 million EUAs over ten years and it is clear that the schemes are only pilot projects at this stage. Although generally welcomed by rural authorities, they have been widely criticized as too small and compared unfavorably with other special EC schemes. Farmers' Unions in the United Kingdom have been particularly jealous of the allocation of 337 million EUAs to improve cattle production in the Italian uplands and 24

million for farm development in Western Ireland. Nevertheless there have been calls to extend programs of this kind to other regions, where agricultural support alone is inadequate, such as Wales, and it seems likely that this may occur.

The EC proposal represents a perceptible if rather cautious step towards evolving a new approach towards rural policy. "Integration" is perhaps inaccurate as a description of a program which reveals a strong bias towards agricultural improvement. As Wibberley and Reid have pointed out, the details of the proposal are not encouraging to the extent that they play an excessive emphasis on agricultural incentives. (9)

A broader base for employment in rural areas is an important aspect of rural development and structural change and in the next section we look briefly at the growing role of part-time farming which is now widespread in OECD countries.

PART-TIME FARMING

A recent OECD study of part-time farming in 14 countries found that incomes from farming had not kept up with the expectations of many families and that as a result many farmers had either given up their farms or taken a second job in addition to farming. (17)

The remarkable growth of part-time farming in many industrialized OECD countries illustrates the extent to which structural changes can occur as a consequence of market forces, rather than specific structural policies. Where part-time farming has flourished it has made farm and off-farm employment increasingly interdependent and has therefore reinforced the need for more integrated rural policies.

In Austria, Japan, Germany, Norway, Switzerland and the United States part-time farming has become a common practice and the available evidence suggests that it is of growing importance in the highly industrialized OECD countries. 3/ At present 40 to 60 percent of all such farmers derive more than half their income from non-farm sources, with the figure for the EC standing at 56 percent (See Table 3).

International comparisons of part-time farming are made difficult by the different definitions used by countries. However, using the concepts of "main living farms" and "supplementary income farms" some broad but meaningful comparisons can be made. On "main living farms", more than half the working time is spent on the farm and it provides more than half the income. People on "supplementary income farms" spend most of their time and derive most of their income off the farm.

The principal reason for getting work off the farm is the desire to earn more money. Such work had traditionally been confined to forestry,

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3/ Japan is the most extreme example. It has 5.6 million people or 11 percent of the working population involved in agriculture and of farm households, 90 percent have members working part-time jobs.

Table 3--Number of full-time and part-time farmers in selected countries

Country and year		Farmers				
		Total	Full-time	Part-time		
				Class I 1/	Class II 2/	Total
		Thousands				
Austria 3/	1960	390	203	42	145	187
	1970	356	171	44	141	185
	1973	334	153	35	146	181
Germany	1965	1,252	512	323	418	741
	1970	1,083	466	234	383	617
	1975	905	409	139	357	496
Norway	1959	198	77	45	76	120
	1969	154	51	32	71	103
	1972	128	44	27	56	84
Switzer-	1965	162	86	14	62	76
land 4/	1969	149	89	--	61	--
	1975	133	65	12	56	68
Japan	1960	6,057	2,078	2,036	1,942	3,978
	1970	5,342	832	1,802	2,709	4,511
	1975	4,953	616	1,259	3,078	4,337
United	1959	3,708	2,043	556	1,109	1,665
States	1964	3,158	1,696	448	1,014	1,462
	1969	2,730	1,248	390	1,092	1,482
Belgium	1970	180	102	16	61	78
Canada	1970	359	250	38	72	110
Finland	1969	298	189	60	50	110
France	1970	1,588	1,229	92	267	359
Ireland	1972	175	136	--	--	39
Italy	1970	3,607	2,249	181	1,177	1,358
Nether-						
lands 5/	1975	163	121	10	30	40
New Zealand 6/		63	55	--	--	8

1/ Dependent mainly on farming but have some, chiefly traditional, off-farm jobs.

2/ Farmers, or members of the household, who spend the greater part of their working time in non-farm occupations and/or derive the greater part of their income from non-farm sources.

3/ Total does not include farms (about 6,000) owned by institutions, etc.

4/ Full-time includes some farmers who would meet the Class 1 definition in other countries in 1969.

5/ Total includes about 2,000 special holdings.

6/ Data for specific year unavailable. Numbers are generally recognized as representatives.

Source: OECD. Part-time Farming in OECD Countries, Paris 1979.

quarrying, fishing and village trades, but the rapid improvement of road systems and the spread of industry to smaller towns have given many farmers the opportunity to take off-farm jobs without being forced to give up their farms. A high proportion of part-time farmers are therefore found in areas with relatively low farm incomes within commuting distance of urban-industrial centers. Many farmers choose to remain on the farm because they feel that they need the security of owning a house with land in order to produce food and a good environment for raising their families. Within the general trend for part-time farming to be on the increase and "main living" farming to be on the decline there is a tendency for part-time farming to spread into the larger farm groups and for farm families to become increasingly dependent on off-farm income.

In general, it appears that the proportion of part-time farms is likely to remain at high levels in the very industrialized countries and may well increase in countries with less favorable conditions for agriculture.

Since off-farm working reduces the available labor supply, it may result in an adjustment to a less labor intensive farming pattern. For example, there has been a shift out of milk production towards fattening calves and pigs and raising more sheep. Although the share of part-time farms in the production of grains and milk is small, there has been a tendency in some countries for the output of grains from these farms to rise. Their production of speciality crops such as fruit, vegetables, flowers, tobacco, and wine-grapes, often account for an appreciable share of trade in the local markets for these products.

The major criticism of part-time farming is that it is a stumbling-block for such structural reforms as farm enlargement, since Part-timers are often reluctant to sell. (19). In areas where land is abundant but people are not, land is idled and even abandoned by part-time farmers instead of being circulated through the land market. Concern has been expressed about the productivity of part-time farmers since they are believed to be less responsive to market forces and agricultural policy incentives. It is therefore more difficult to incorporate them into the production and marketing systems of market organizations. (20).

On the other hand, there are substantial advantages to part-time farming. For the individual involved there is the personal security of owning a house, the advantages of rural life and a rural upbringing for children. Also, nonfarm services such as, farm holidays, particularly for relatives, care of children, caretaking of second homes and storage of caravans may be offered by part-time farmers.

Perhaps the major advantage of the growth of part-time farming is that, in combination with other occupations, it enables people to make a living in rural areas and checks rural depopulation.

Part-time Farming and Agricultural Policies

Part-time farming has generally developed spontaneously as a reaction of farm families to various socio-economic factors and has not been the object of deliberate government action. This is because part-time farming has been

considered a minor side-effect of structural changes and until recently has received very little official attention. Governments' attitudes towards part-time farming seem to depend mainly on whether or not this phenomenon fits in with certain broad agricultural policy goals. In the EC there is no individual policy which relates specifically to part-time farming.

The Farm Modernization Directive (EEC 72/159) does not exclude part-time farms from applying but the farm receiving aid has to be a full-time farm by the end of its development period. In Germany, however, there is a deliberate attempt to encourage part-time farming as part of the integration of regional policies. After the war the whole countryside was opened up to industry and many thousands of families started part-time farming. This was a unique situation however, since it involved using small farms to absorb the millions of refugees from the East and the efforts to establish new industries in rural areas coincided with economic recovery and growth. (19)

However, attitudes toward part-time farming appears to be changing. The role of part-time farming in regional development, particularly in remote and less favored rural areas suffering from depopulation, bad farm structures and low wage levels, is becoming increasingly appreciated.

Suggestions for supporting part-time farming have stressed the need for policy makers and administrators to stop making value judgements about the desirability or otherwise of introducing part-time farming and recognize that it already exists as a permanent feature.

Appropriate income, credit and taxation measures could be devised to encourage industry into rural areas along with back-up training for new non-farm occupations. This is already occuring in parts of Germany. Advisory services in several countries are providing socio-economic advice on dealing with the problems of working both on and off the land.

Agricultural productivity on these farms might well be improved by organizing a special advisory service, by making available the rural credit needed for alterations to the farm, for encouragement of consolidation and for at least partial specialization for commercial markets.

Taxation policy could encourage more intensive use of land, discourage land from being left idle and possibly allow some land unsuitable for cultivation to be turned to recreational use and tourism. (19)

AGRICULTURAL EMPLOYMENT

The significance of policies designed to maintain rural employment have received considerable emphasis already in this report. For much of the post World War II period farm structure policies have been compatible with the general goal of maintaining full employment, with labor released from farming being readily absorbed elsewhere. Agricultural employment in Western Europe fell by 40 percent between 1955 and 1975, largely as a consequence of mechanization and the pull of higher incomes in the industrial and service sectors. This exodus would have been even more rapid if governments had not taken steps to protect the agricultural employment and in some countries protective measures were strengthened, especially in disadvantaged regions.

This trend is likely to be sustained until there is an economic up-turn of sufficient magnitude to improve rural employment prospects outside farming.

In most OECD countries farms are worked predominantly by family members and hired workers are relatively few. Britain and Australasia are exceptions to this rule, but even in the United Kingdom full-time male farm workers constituted only 23 percent of those engaged in agriculture in 1977. The EC as a whole the figure was 5 percent.

Part-time workers, both family and hired, are an important segment of the labor force in the majority of countries, and in Britain at last, they are tending to displace full-time workers on many farms. The importance of part-time workers in the EC can be gauged from the results of a 1975 structures survey. This showed that agriculture as a whole provided 7.5 million person-years of jobs for an overall labor force consisting of 5.8 million "farmheads", 6 million family members and 1 million regular non-family workers. Of the 7.5 million fulltime job equivalents or Annual Work Units, (AWUs) "farmheads" accounted for 46 percent, family workers 36 percent, regular non-family workers 11 percent and casual and seasonal workers 7 percent. From this it can be seen that farm workers are responsible for a larger proportion of working hours than their numbers would suggest, especially in the United Kingdom where they are responsible for 40 percent of AWUs (with regular workers accounting for 33 percent). On the other hand, family workers who are six times more numerous provide only twice as much labor and only 14 percent of them work on a full-time basis as opposed to 65 percent for non-family workers. In most EC countries, 50 to 70 percent of all farmers work full time in agriculture, but the EC average is reduced to 36 percent by Italy, where only 16 percent are full-time. At the other extreme, 27 percent of the Community's farmers work less than a quarter of their time on their holdings (40 percent in Italy, 7 percent in the United Kingdom, between 10 and 20 percent in other countries). (5)

Given the structure of the labor force, it is easy to see why agricultural policies so often have been directed at family farms and the employment of farmers, while farm workers have been subject to so little attention. Farm workers continue to work long hours for relatively poor wages. Their numbers are continuing to fall as farmers adopt increasingly sophisticated forms of mechanization. Figures produced by the EC Commission for 1977 suggest that farm workers in most parts of the community were paid between 70 percent and 80 percent of the average hourly earnings in the food, drink and tobacco industries. In the United Kingdom, hourly earnings for farm workers were only 69.7 percent of that in industry. In the Netherlands, where there were only about 15,000 full-time workers, the figure was 87 percent (21). International comparisons are complicated by monetary and other factors, but the evidence suggests that farm workers remain poorly paid almost everywhere, while structural policies have consistently aimed at trying to raise farmers' incomes.

In the more prosperous regions, farmers have attained substantial income growth, although annual, sectoral and regional variations continued to be marked. In the EC, it has been estimated that farm incomes grew in real terms at the rate of 3.9 percent annually in the decade starting in 1968. This compared with a rate of 3.4 percent in other parts of the economy. Some

of the most recent figures suggest Dutch and Danish farmers were the most prosperous in the EC in 1977/78. Figures from farms participating in the EC's Farm Accountancy Data Network show that 19 percent of the Dutch sample had an income of greater than 12,000 pounds Sterling 4/ during that year, compared with 23.8 percent in Denmark. (22) In the United Kingdom, where the farms are very much larger than anywhere in the Community, only 4.1 percent of the sample had incomes of this size, a fact which underlines the point that there is no simple link between size and efficiency. The survey also revealed that farm workers were particularly badly paid in Ireland where their earnings were only 48 percent of farmers' incomes--compared with a more equal ratio in Germany, where farms were similar in size.

The aggregate effect of agricultural policies in combination with market forces has been to reduce the size of the workforce at a rapid but fairly steady pace with family workers leaving at the fastest rate. However, some family workers appear to have merely changed their employee status in order to take advantage of the social security benefits, which are better than those available to self-employed people in many countries. (20). Mechanization and specialization have heightened seasonal and daily variations in work load for certain groups, especially small farmers. Recently there has been a reduction in the rate of decline in the workforce due to reduced employment opportunities elsewhere. However, a substantial further fall in numbers seems inevitable especially in regions where the structure is dominated by elderly farmers with small holdings and real incomes are low and in areas where farming is an isolated, demanding and poorly remunerated occupation. For example in parts of the Massif Centrale Region of France, it is proving difficult to attract enough young people to maintain the current structure. It should be remembered that 45 percent of farmers in the EC were over 55 years of age and only 7 percent under 35 at the time of the structure survey in 1975. (5)

It is likely that the number of full-time hired and family workers will also continue to decline, although perhaps not as rapidly as in the past. Modest measures to improve conditions for farm workers in the United Kingdom have been implemented in recent years (for example their security of tenure in farm cottages has been somewhat strengthened) and their relative earnings have risen slightly. However, these factors, while making farm employment more attractive, inevitably gives farmers an incentive to reduce their workforce.

Policies designed to stabilize or increase farm employment in particular areas have been referred to already, but schemes operated in New Zealand merit special attention, as they are concerned with both farm workers and farm families. Temporary job creation schemes were introduced by the Government in the late 1970s and 4,000 out of a total of around 30,000 jobs made available were in agriculture. Farmers were given wage subsidies for a period of six months in order to create the jobs, but as often happens with such schemes, few of the temporary employees were offered permanent jobs at the end of the period. (2)

4/ The average exchange rate in pounds per dollar was .5729 in 1977 and .5210 in 1978.

The New Zealand Government has also introduced a number of measures designed to create more long-term employment in agriculture, partly in order to raise output and partly to reduce unemployment. One of the oldest is the "farm cadet" scheme which has been running for about ten years and performs the role of finding jobs for young people, mostly from urban backgrounds who wish to become farm workers. The farmers involved receive a subsidy of 60 percent of the wages paid to the farm cadet while he or she is on a seven week training course during the first year of work. In the second year there is a 50 percent subsidy for a four week training period and in the third year a 40 percent subsidy for a final four weeks of training. (23) Fewer than 1,500 people are involved at present, but numbers are expected to rise "fairly rapidly". (24) The subsidy was recently doubled to ensure that employers of cadets in the farm sector would not be disadvantaged compared with employers in other industries. (2).

Other measures include the provision of financial assistance for farm workers buying houses, assistance with schooling for farm workers' children, a subsidy for farmers who take on permanent employees from among those who are unemployed and investment allowances on new houses for farm workers. Further assistance is provided in the form of rural infrastructure projects covering electricity, water supplies and schools.

ENVIRONMENTAL AND AMENITY POLICIES

Environmental policies have yet to make a major impact on farm structures in most countries and strictly environmental objectives are only beginning to have an influence on agricultural legislation. Resource convervation policies, especially those concerned with soil, water and forests, have had much more of an effect on structures, but they have generally been "agricultural" in the sense of regulating the conditions required for successful farming, rather than "environmental". The principal areas in which environmental considerations are beginning to impinge on agricultural activities are: (a) restraints on the intensification of agriculture on some areas, for example national parks; (b) restraints on the expansion of agriculture into previously unexploited land; and, (c) the design of policies for mountainous and disadvantaged areas where the survival of small-farm structures is often regarded as a benefit to the environment. The relevant measures take many different forms varying from national legislation protecting wild-life to local planning and zoning activities.

In Europe, support for mountainous and disadvantaged areas is justified on a mixture of different grounds which include social, agricultural, economic, recreational and environmental elements. It is often difficult to gauge the importance of environmental factors in this mix. Although they have become more prominent in recent years, it is still agricultural and social factors which are the principal determinants of policy in marginal and unplanned regions. For example, the EC's Directive 268 on less favored areas referred to earlier, is sometimes described as a piece of environmental legislation, but this is extremely misleading. The primary objectives of the Directive are social and agricultural, and to a large extent it is an elaboration and enlargement of a measure granting headage payments for upland ewes, first introduced in the United Kingdom in 1941, when maximizing the output of meat was a matter of some strategic importance. It is true that

article 3.5 of the Directive does allow areas to be designated as "less-favored" if there is a need to continue farming so as to preserve landscape and tourist potential or if there are constraints on farming arising from landscape or coastline preservation measures. However, it is significant that Article 3.5 has been little used by member countries and it seems unlikely that conservation measures are a major constraint on agricultural output in many parts of the EC or, indeed, the OECD countries.

Where environmental objectives do have an important bearing on rural and agricultural policies, as in national parks, for example, it is often because recreational and tourist interests are involved. In heavily visited areas, landscape management is often a valued by-product of farming, especially where skiing, pony trekking and other forms of outdoor recreation are catered for. Government support for small farms in the Swiss Alps is more generous than in the Auvergne region of France even though Swiss farmers have more opportunity to supplement their incomes by participating in the tourist industry. It is increasingly recognized that traditional methods of farming and, to a lesser extent, traditional structures, are principally responsible for some of the most admired (and most visited) landscapes and this is likely to be a factor of growing importance in farming policy for upland and marginal areas.

In the most visited areas, off-farm employment is likely to be more available than elsewhere and there is a greater chance of agriculture benefitting from special support measures, but on the other hand, recreational pressures on farming are correspondingly greater and planning controls are likely to be stricter. The provision of amenities is attractive economically and highly compatible with the "integrated rural development" approach and, in Europe at least, it seems likely that governments will be introducing further measures to integrate farming with tourism and recreation. One result of this is that the viability of many small farms is likely to be improved, at least as part-time holdings. At the same time conflicts between recreational and conservation interests can be expected to increase and governments may be obligated to offer farmers financial incentives to conserve natural fauna and flora. Conservation measures generally restrict farming activities, for example by controlling the area ploughed or the application of agro-chemicals, and they are likely to grow in importance, especially in designated areas. It is difficult to predict the impact of stronger conservation measures on farm structures, but restrictions on drainage, the ploughing of new ground and land clearance may affect farm size, as might measures designed to protect the features associated with traditional farming systems (such as terraced fields on the steep and ecologically fragile slopes of the Alps). Restrictions on the use of agro-chemicals or on the establishment of intensive livestock units may necessitate a greater input of land or labor and the availability of compensation is potentially an important factor. In the long run grants, direct income payments and other measures will probably be used over a wide area to encourage farmers to become more involved in conservation and amenity provision, thus prolonging the existence of many holdings which would not otherwise be viable.

In the United Kingdom, the Countryside Commission, a statutory body concerned with rural conservation, amenity and recreation, has worked since 1969 on a series of "Upland Management Experiments". These have operated

within national parks, attempting to deal with conflicts between conservation, public access, farming and the social and economic well being of local people. The experiments revolved around paid Project Officers and were publicly financed through the Countryside Commission. The first experiment covered only a small area, but worked well; "Farmers and self-employed workers living in the dale heads where problems of economic decline and lack of employment were endemic were paid to mend stiles, drain footpaths, build bridges, repair walls and maintain other features of the landscape. They repaired visitors' damage, re-routed footpaths to allow worn tracks to heal or to divide the public from some important function of farming such as a hayfield, a field with a bull, or farm buildings." (12) In the second experiment the scheme was extended to cover 20 percent of the Lake District National Park and following this, Project Officers have been appointed by every national park in the United Kingdom as a normal service. A third stage of experiment began in the Lake District in 1977, with the aim of further integrating farming and recreation, while conserving and enhancing the farmed landscape. Farmers are being encouraged to cater for tourists, for example by turning traditional farm buildings into self-catering holiday accomodation. This may involve other changes, such as abandoning often unprofitable beef enterprises in favor of enlarged stocks of sheep, which require fewer buildings and fixed equipment. The Commission report that "by adding tourism enterprises to the farm, the increased strength and room for maneuver in the structure of the farm business allows the farmer and his advisors to shape the business in such a way that it can meet both the social and economic objectives of the farmer as well as the purposes of the National Park". (12)

In most OECD countries, zoning or land use planning legislation is having an increasing impact on rural areas, although the extent of regulation is still much less than in urban districts. Farms in the "urban fringe" are most likely to be affected, but these types of regulations have had only a modest effect on the trends towards fragmentation, recreational land-uses and increasingly part-time holdings. In Britain and some other countries planning controls are used to try to minimize the impact of urban development on agricultural land and while there has been some success in this direction, it has proved extremely difficult to plan positively rather than negatively. The result is continuing fragmentation and the persistance of substantial areas of idle land on the edge of many urban communities.

Recent developments in the State of the New South Wales, Australia, provide a example of the use of zoning to protect the rural environment. The State's Planning and Environment Commission have developed a policy for the zoning of all land outside urban areas with the vast bulk of it designated either as "Rural" or as "Rural Environmental Protection". In the Rural zone most of the land is agricultural and planning controls are far from onerous, but there is a policy that the majority of holdings should be at least 40 hectares with smaller holdings being clustered together in appropriate sites, often near a town. This "subdivision control" is intended to keep up the size of farm holdings to a viable level and is operated by local councils. However, where it is decided that the maintenance of the rural environment is of fundamental importance, the Commission had designated the land as a Rural Environmental Protection Zone. Here, agriculture and other activities are much more closely regulated, in order to protect the original shape and form of the land, its drainage pattern and its flora and fauna. Economic as well

as conservation factors are involved, for example both the clearing of mangrove swamps and the pollution of estaurine waters are a threat to the local fishing industry. There are ten groupings within the zone; Escarpment, Archaelogical site, Historic site, Scientific site, Wildlife refuge, Wetlands, Estaurine Wetlands, Foreshare Protection, Scenic and Water catchment. Several types of development are partly or wholly banned within each grouping and there are some general rules, such as the tree cover cannot be removed without consent anywhere in the zone. It is too early to assess the efficiency of this type of zoning, but it may have application in other countries with broadly similar conditions. (25)

SOCIAL SECURITY AND PENSION POLICIES

Farm families have traditionally worked long hours, had few holidays and retired late in life. This description still fits most full-time farmers and although working patterns have changed somewhat, it has been at a rather slower pace than in other parts of the economy. Farmers and farm workers have not been particularly generously treated by the social security and welfare systems now operating almost everywhere in the OECD; one reason for this being the fact that most farmers are self-employed. However, improvement in welfare services, availability of pensions, sickness benefits have contributed to better living standards and increased security for many families. Some family workers have ceased being self-employed and opted to be employees instead, thus making themselves eligible for different benefits, but it is difficult to assess the impact of welfare improvements as a whole on farm structure. Pension schemes have probably affected some farmers retirement plans, but in 1975, 21 percent of the EC's farmers were over 65 and they still held 13 percent of the agricultural land. Other benefits have reduced some of the hardships associated with small marginal farms, and while this may have encouraged some families to stay on their holdings, it should be remembered that the improved pay and conditions available to employees in non-farm occupations have hastened the departure from the land of many young people.

Over the last few years a few OECD countries, especially in Scandinavia, have taken new steps to improve farmers' working conditions. An example, of this is the provision of paid holidays for self-employed farmers. Finland has been particularly active in this sphere. Finnish livestock farmers have been entitled to annual paid holidays since 1974. Initially these were for six days, but by 1979/80, the period had been extended to twelve or fourteen days, and applied to all livestock farmers who did not hire labor. (2) Norway has similar provisions and farmers are now included in the national relief worker scheme which entitles them to salary and a replacement labor if ill health prevents them from working. (2) Despite their advantages, the usefulness of such schemes is impaired by the reluctance of most farmers to entrust their animals to anyone else, even for a short period.

The nature and extent of social security systems varies considerably between countries. Contributions by and benefits for farmers in EC countries are shown in Table 4. Summary tables of this kind should be treated with caution, but except for the Netherlands the consistently low value of contributions in relation to benefits is quite striking.

Pension schemes also vary between countries and some information about the position in EC countries in July 1978 is shown in Table 5. Most schemes

Table 4: Social security for EC farmers, financing and benefits, 1977

Country	Funding Source			Statutory benefits					Proportion of benefits contributed by farmers
	Government	Farmers	Total	Illness	Old age death & survivors	Occupational injury	Family allowances	Total	
	Million EUA 1/								Percent
West Germany	1,345.67	764.61	2,110.28	636.41	799.39	225.62	312.98	1,974.40	38.73
France	2/3,286.86	600.37	3,887.22	1,611.00	2,166.09	45.82	492.35	3,865.27	15.53
Italy	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3/13.78
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3/85.96
Belgium	179.87	105.43	285.30	49.17	275.93	--	77.58	402.68	26.18
Luxembourg	16.20	4.16	20.36	4.99	4/10.84	2.21	2.81	20.85	19.97
United Kingdom	4/220.66	73.81	294.47	4/145.35	135.56	--	13.56	294.47	25.06
Ireland	69.35	1.52	70.87	60.88	--	--	9.98	70.86	2.14
Denmark	5/228.93	.43	229.36	117.82	4/88.75	.14	22.65	229.36	.19

1/ European unit of account, conversion rate, 1978.
2/ Taxes on certain agricultural products provided 177.88 million EUA of this sum.
3/ 1975.
4/ Includes permanent disability.
5/ Includes national transfer.

Source: EEC. The Agricultural Situation in the Community, 1979 Report., Brussels-Luxembourg, January 1980.

Table 5: Annual pensions for EC farmers retiring at full age as of July 1, 1978, by country

Country	Qualifications: Age: Male	Age: Female	Other	Amount of pen: Individual	C
				EUA 1/	
West Germany	65	65	At least 180 months of contributions which may vary with position of family. Cessation of farming compulsory.	1,471.79 ($1,875.56)	2, ($2,
France	65	65	Employment in agriculture for for 15 years. Proof of 15 years contributions. Cessation of farming not required. Supplement is related to farm size.	1,010.48 ($1,287.69) plus supplement	2/2, ($2, pl suppl
Italy	65	60	At least 15 years participation. No conditions as to other income. Cessation of work not compulsory.	1,096.36 ($1,397.13)	2/2,1 ($2,7
Netherlands	65	65	Cessation of work not compulsory	3,914.90 ($4,988.91)	5,7 ($7,2
Belgium	65	60	Subject to income ceiling. Only authorized employment allowed.	2,556.53 ($3,257.89)	3,1 ($4,0
Luxembourg	65	65	At least 15 years affiliation and 15 years in residence. Cessation of work not compulsory.	1,710.98 ($2,180.37)	2,92 ($3,73
United Kingdom	65	60	Cessation of regular work compulsory.	1,370.67 ($1,746.70)	2,19 ($2,79
Ireland	65	65	Nothing from social Security. Unemployment assistance if income is IRL14 or less per week.	1,065.24 ($1,357.48)	
	80	80		1,147.48 ($1,462.28)	
Denmark	67	62	Basic amount dependent on income. No contributions. Residency requirement. Cessation of work not compulsory. Maximum supplement based on resources.	2,834.41 ($3,612.00) 608 ($774.80)	4,415 ($5,626 661 ($842

1/ European Unit of account as defined by EEC Regulation No. 75/250, April 21, 1975, at 1978 exchange rates. A factor of 1.2734 was used to convert EUAs to U.S. dollars.
2/ If both are directly involved in farming.

Source: EEC. The Agricultural Situation in the Community, 1979 Report, Brussels-Luxembourg, January 1980.

do not require a farmer to give up his or her occupation in order to qualify for a pension and this clearly helps to explain the high proportion of elderly farmers in the Community. However, in West Germany it is stipulated that farmers must hand over control of their holding to someone else before being eligible for a pension and it may be significant that only about 9 percent of German farmers are over 65.

Different retirement incentives for farmers are offered in France as well as other countries under individual agricultural measures. Some of these will be covered in a later section of the report.

AGRICULTURE AND ENERGY

One factor that is likely to influence adjustment in all fields of agriculture during the 1980's will be the price and availability of energy.

Agricultural policies adapted very slowly to the fundamental changes in the energy situation that occurred in 1973. The cost of those forms of energy most utilized by farmers at first increased much more slowly than oil prices and it was only the types of production which consumed large amounts of energy that were affected. These were glasshouse products, early vegetables transported over long distances, tobacco, and other irrigated products with a low market value. Difficulties in these sectors sometimes had a significant impact at the regional level. (2)

Where energy costs have posed a serious threat to particular groups of farmers, governments have occasionally intervened. For example, horticultural producers in the EC have been given special aids to help them adjust to higher oil prices. In the Netherlands, glasshouses are mainly fueled by gas, available at relatively low contract prices. This has caused resentment in other parts of the Community where producers have asked for special subsidies to allow them to compete with Dutch imports. In West Germany, where the horticultural sector employes about 75,000 persons in 20,000 enterprises, the Government became concerned that Dutch imports which normally account for half the German market, were a serious threat to the domestic industry. Arguing that bankruptcies could engender serious social and regional problems, the Government introduced a subsidy scheme in the 1980 budget, due to last for one year. Under this scheme, 50.6 million DM 5/ were allocated in the form of a 12 percent interest rate subsidy, calculated on the basis of the quantity of heating oil used in 1978. The subsidy was justified on two grounds. First, producers were unable to pass on the full increase in costs because of Dutch competition. Second, it was argued that many German horticulturalists would be prevented by cash shortages from benefitting from existing schemes designed to aid conversion to fuels such as coal, gas or heat recovery. The subsidy was approved by the EC Commission and commended to other member states as a model. (26)

In 1979 farmers were normally able to pass their rising costs onto consumers but with the international recession it is likely that consumers will react adversely to rising food prices and so squeeze farmers incomes.

5/ The average 1980 exchange rate was 1.8177 marks per U.S. dollar.

In some countries rising energy costs have led to policies to increase self-sufficiency in order to reduce local imports and free foreign exchange to buy oil. At present, higher self-sufficiency is still only an objective and only for certain countries but it may have significant reprecussions for future agricultural trade.

Increasingly, as countries endeavor to reduce their demand for oil they are turning to other sources of energy, such as coal and solar, wind, and wave power. The production of energy from biomass is one option and in the agricultural sector there is growing interest in fuel crops. Over the long term this could alleivate some of the problems arising from surplus production but will introduce a set of new difficulties.

Research and pilot projects for converting plant material into alcohol are already underway in several OECD countries such as New Zealand, Australia, Austria and the United States. In Australia, the world's third largest exporter of cereal, there is both Government and private industry interest in producing alcohol distilled from wheat. The Government's Commonwealth Scientific and Research Organization analyzed liquid fuel prospects from crops, crop residues and forest refuse and estimated that almost three fourths of Australia's transport fuel could be provided from these sources. (27) Two private firms, a petrol company and a biotechnology company, estimate that in 5 years Australia could produce 15 to 20 percent of its motor vehicle fuel requirements from alcohol distilled from wheat. The two companies are in the process of setting up a pilot plant in a former brewery. (28)

Austria's increasing agricultural output has led to a grain surplus of 200-300,000 tons per year, which is disposed of in the form of subsidized exports to Eastern Europe. The Austrian Ministry of Science and Research has sponsored "The Fuel from Biomass Project" in an endeavor to turn this surplus grain into alcohol for fuel. It is expected that the distillers' grain remaining after the fermentation will be used as high protein feed for livestock, which would reduce the demand for imported soybean and fishmeal (29).

In 1977 the New Zealand Energy Research and Development Committee began to consider turning crops such as sugar beet, fodder beet, lucerne and maize, as well as pine trees, into alcohol. In balance of payments terms "energy farming could save as much as $2 of foreign exchange for every $1 of foreign exchange earnings lost by way of displaced agriculture production". (30) However, to provide all of New Zealand's road fuel from these sources would require some of the land at present used for food crops to be turned over to energy cropping. Similarly, for Australia to produce enough alcohol for all its motor fuel needs would require roughly as much wheat as the whole country currently produces.

Conflict for land between food and energy crops is not the only problem with biomass. The New Zealand Energy Research and Development Committee found that it would be necessary to concentrate the energy crops on the flatter, more easily accessible land near processing plants and near the users in order to reduce the energy used in transportation. Inevitably, this is likely to be prime land for food production. In some areas sustaining biomass production would require irrigation which would result in competition with other uses for limited water supplies. Energy crops also bring with them the possibility of

ground water pollution since they require heavy fertilizer use due to the virtually complete removal of the above ground portion of the crop and hence minimal return of nutrients. (31)

INTEGRATED FOOD AND AGRICULTURAL POLICIES

The Case of Norway

Food and nutrition policies have been widely discussed in recent years, but steps to implement them have been rather tentative. In Norway the process has been taken further than anywhere else with the introduction of an integrated food and nutrition policy in 1976. The underlying goals are as follows:

- Encouragement of healthy dietary habits as an important factor in the improvement of public health.
- Increase in the proportion of total food requirements derived from domestic sources, linked to the capacity to increase rapidly the degree of self-sufficiency in an emergency.
- Strengthening of the rural economy; in particular, the stabilizing of populations and the optimal use of agricultural resources in the economically weaker areas.
- Formulation of an integrated policy in line with the recommendations of the World Food Conference concerning the rational use of food resources and the non-exploitation of the poorer nations by the richer in respect of food."

It is worth noting that this nutritional policy is designed to be implemented by means of consumer education and the use of price policy, especially consumer subsidies. It places considerable emphasis on the desirability of reducing fat intake from an average of 42.5 percent of dietary intake in 1974-78 to 35 in 1990, and increasing the polyunsaturated fat intake at the expense of saturated fats. Since dairying is the dominant sector in Norwegian agriculture, there is a strong incentive to maintain consumption of butter and meat and this accounts for the rather strong recommendation that the intake of margarine rather than butter should be cut. Other recommendations include holding the per capita consumption of red meat at its current level (but stimulating beef and mutton intake at the expense of pig and poultrymeat), raising the consumption of skimmed milk, fruit, vegetbles and grains and discouraging sugar and cream consumption.

From the beginning it was clear that a comprehensive food and nutrition policy would give rise to conflicts of interest and that it would be difficult to introduce measures strongly opposed by the agricultural sector. In this selective review of the consequences of this new policy, we have concentrated on some of the difficulties encountered, since this ground is covered only sparsely in the literature and there may be some lessons of more general application. Other aspects of the policy are covered in more detail by Blythe (32) and Cohen. (10).

Central to the difficulties faced by the Norwegians in implementing their Nutrition and Food Policy is the hostile terrain (over 58 percent of the land area is above the timber line) (33) and the slender prospects for

expanding the non-dairy sector of agriculture. Grassland accounts for up to 60 percent of agricultural land (33). With the average milk yield exceeding 5,630 liters and 226 kilograms of milk fat per cow, Norway produced in 1977 over 430 liters of milk for every adult and child in the country. (34) Dairy research organizations are fully occupied trying to find ways of using the surplus. Dried skimmed milk finds its way into a wide range of prepared meat, fish and cereal products and veterinary researchers are encouraged to find out how far milk products can replace other items in the diet of livestock. Food aid is no longer seen as a respectable outlet for dried skimmed milk.

At present there seem to be only two broad alternatives which are; continue to support agriculture by direct and indirect means and attempt to dispose of the inevitable dairy surplus, or refuse supports and subsidies and allow farming to cease over large areas. No complete "social audit" of the costs which would follow a decision to abandon farmers has been attempted, but the unspoken assumption in Norway is that the resultant social and economic costs of applying free market criteria to agriculture would exceed even the present heavy costs of the agricultural support policy. For this and for overtly strategic reasons (Norway shares a 122 mile border with the USSR) the Government has decided that the remote rural areas should remain populated and to this end the farming population will be supported. Small dairy farmers in the North receive particularly generous aid.

It is evident, however, that the Government has some way to go in persuading the urban-industrial population wholeheartedly to embrace this policy of heavy agricultural support. In 1977, only 40 percent of farm income derived from sales of produce, the remainder came from freight subsidies, compensation from value-added tax and other income support measures. (34) As the consumer also benefits from a comprehensive range of food subsidies, it follows that the ultimate burden of support is born out of general taxation, via money generated overwhelmingly in the manufacturing and service sectors. Newspapers have for some time reported discontent at the burden imposed by agricultural support from both employer and worker organizations.

This problem has been made more difficult to resolve by the fact that subsidies have been used to regulate the consumer price index in order to fulfill agreements made with worker organizations, rather than for influencing food consumption for nutritional reasons. (32) Indeed, because some items carry a heavier consumer price index weighting than others, it has contributed to an increased consumption of nutritionally questionable items (white bread, whole milk and pork), and has subsidized the richer consumers without greatly benefiting poorer groups. No doubt the latter aspects of the application of subsidies was accidental, but the former was deliberate and designed to meet the pressing political need to stabilize the consumer price index.

In addition to the above use of subsidies there are actual price cutting mechanisms designed to further stimulate consumption. Generally these work well but in the case of dairy products growing public dietary knowledge has made the device counter-productive. The 1978 Dairy Industry Report states that: (34).

> "...the consumption of butter is suffering under the prevailing dietary information. It is characteristic that our offers of strongly reduced

prices no longer draw the same attention as earlier...This way of regulating the market has become both expensive and less effective." The authors conclude:

> "Any reduction in the sale of milk and greater resistance against sales of butter is something we have to expect. Furthermore, we must assume an increasing demand for cheese with lower fat content."

A major element in the Nutrition and Food Policy is the proposal to reduce overall consumption of fat in the diet and to improve the ratio of polyunsaturated fats to saturated fats. Both these aims could be realized by cutting butter consumption and by altering both the oil and water composition of margarine. However, the need to find outlets for milk fat has resulted in the clearly political decision to reduce margarine consumption by 33 percent by 1990 and increase butter consumption by 40 percent (35). Since margarine consumption exceeds butter by a ratio of 3.5:1, such a move would still result in a net fall in fat consumption. This decision creates a number of anomalies which illustrate the problems of working out such a complex policy.

Margarine in Norway has historically been made from hyrdogenated marine oils and these are still the main ingredient. However, the decline in fish stocks combined with the increased public awareness of the polyunsaturated fat debate have led to newer formulations with increased amounts of vegetable oils. Margarine is a flexible product, able to incorporate changes in formulations and still remain within the range of acceptability demanded by the public. Thus it is in theory possible to increase the polyunsaturated content of the diet simply by increasing the proportion of unsaturated/unhydrogenated vegetable oils in margarines. The problem is that Norway is unable to produce any plant oil in commercial quantities (small quantities of rape only are grown for fodder). Thus, whatever vegetable oil is used must be imported, which conflicts with the second stated object of the 1975-76 policy, that of increasing national self-sufficiency.

The fourth stated objective of the policy relates to the non-exploitation of poorer nations by the richer in respect to food. There is also a strong debate about the ethics of stimulating cash crop economies in the third world among which oil crops figure prominently.

Another difficulty with implementing an effective nutrition and food policy is that it is not easy to institute curbs on private sector advertising without having an exceptionally good case as with tobacco and alcohol, neither of which may be advertised in Norway, and without appearing to be unduly repressive. At the same time, in the present climate, it is politically difficult to secure further budgetary allowances for official bodies such as the National Nutrition Council. When private sector food advertising exceeds government spending on nutritional information by a ratio of 17:1 (36) as it did in 1976, the disparity is great enough to vitiate if not nullify government efforts at consumer education.

To summarize, Norwegian policy makers face acute difficulties in their efforts to balance the conflicting aims of stabilizing the population in rural areas, averting sharp increases in the consumer price index and bringing about a general improvement in the health of the population. In this situation the

longer term goal of improving public health via nutritional measures appears, for the moment, to have been shelved in favor of dealing with pressing economic and political problems. (37)

Postscript

In its October 4, 1980 budget, the Norwegian Government reversed a trend of several years by cutting direct taxation and increasing indirect taxation. Cuts range from 37 percent for a two adult - two child family in the lowest income group, to 10 percent for a single earner in the top income bracket. Against this, subsidies and compensation for value added tax have been reduced for a wide range of consumer items, especially gasoline, electricity and food. Beef, pork, lamb, fish, flour, sugar, butter, cheese and margarine will now go up in price (examples: beef 18 percent, flour 22 percent, butter 26 percent and margarine 36 percent). The average family food budget is currently around kr. 1,800 6/ per month and subsidy reductions are expected to increase this by some kr. 200 per month (38). Nutritionally desirable items or staple foods important to lower income families are not excluded from the subsidy cuts. These developments further reinforce the conclusion that pricing policy cannot be used to further broad social objectives (such as improved nutrition and health status) in the present economic situation.

FISCAL AND TENURE POLICIES

Questions of taxation of farmers, land prices, ownership and access to land are all central issues when considering structural policies. This section begins with a consideration of inheritance practices and laws, and taxation of agriculture, followed by a look at the trends in tenancy, farm size, farm prices and ownership and lastly at the difficulties experienced by new entrants endeavoring to make a start in agriculture.

Inheritance and Farm Structure

Although concern about the effect of taxation on agriculture is widely voiced, inheritance laws are in fact a bigger problem for the majority of farmers in the EC. With the exception of Britain, the majority of EC farm units are small and the rates of capital taxation applied are quite low. Far more disruptive in terms of farm structure are family disagreements over inheritances which can result in farms being broken up, but which more frequently involves the heir in substantial payouts to brothers and sisters. (39)

The British tradition of primogeniture, that is a single heir inheriting the land, has until recently prevented similar problems arising. However, this tradition is beginning to break down in Britain as splitting of inheritance between various heirs has become more common.

Taxation and Structure

Both income and capital taxation can have significant effects on farm structure. This can occur indirectly through their influence upon such

6/ In 1980 the average exchange rate was 4.9392 kroner per U.S. dollar.

factors as incomes, employment and land prices, and directly because of their discriminatory nature. For example, taxation of both income and capital tends to be progressive, thus providing some disincentive to farm expansion.

A major problem in formulating and analyzing taxation policy is the considerable uncertainty which surrounds the effects of various measures. The effect of a range of average and marginal tax rates upon output levels, for example, will vary greatly according to the extent to which farmers endeavor to achieve a target income level, or strive for a rate of return on production factors. Furthermore, tax concessions can quickly be nullified as a result of capitalization. Thus tax concessions to owners of farm land, introduced perhaps to alleviate the impact of capital taxation, may rapidly be offset by an increase in land prices, making agricultural land a more attractive investment.

One practical example from the United Kingdom of the uncertainty surrounding tax policy is the considerable controversy which still exists over the potential impact on farm structure of the Capital Transfer Tax (CTT). which was introduced during 1974 and 1975. It was feared in some quarters that CTT would lead to rapid decline in the number of owner-occupied farms above a fairly small size, and that in their place growth in the ownership of farmland by corporate and institutional bodies. (40) The recent Report of the Northfield Committee on the Ownership and Occupancy of Agricultural Land was sceptical of these claims. (41) However, without knowledge of future trends in land prices, or the extent to which farmers will make special provision to meet or avoid tax liabilities, it is very difficult to decide between the two conflicting viewpoints.

In almost all countries under review, farmers receive special protection from the full burden of taxation. One reason for this is that agriculture is more vulnerable to capital taxation than most other industries. It is comparatively capital intensive, especially when land values are included,and the the annual return on land in particular tends to be low. Owner-occupiers, who account for more than 50 percent of the agricultural land area in every country of the EC except Belgium, (42) are therefore likely to encounter difficulties in meeting any significant taxation claims upon the capital value of their farm out of annual income. This problem has been compounded by the general rise in land prices particularly in the second half of the 1970's. For farming, with an over-whelming tradition of family enterprise and succession, the effects of unmitigated capital taxation would be to encourage fragmentation, especially if land were sold off to meet capital tax liabilities. In addition, it would preempt a high proportion of farm income.

Certain farmers are exempt from paying taxes in some countries because of the administrative difficulties in collecting taxes from very large numbers of "peasant-type" farmers. As a consequence, many EC countries - notably West Germany, France, Italy, Belgium, Luxembourg and Ireland (43) - collect the majority of farm taxes on a notional, rather than an accounting basis, imputing an income based on land area, cropping, and livestock numbers.

A report to the former French President, Giscard d'Estaing, from the Tax Council noted that this has led to widespread under-payments of taxes,

particularly by the more efficient farmers. In addition, large numbers of smaller farmers are simply "unknown" to the tax authorities, which in France does not constitute an offense. (44)

Within the EC, where agricultural prices are increasingly fixed at a supra-national level, it is to be expected that national governments will make greater use of a taxation policy as a means of protecting the disposable incomes of those farmers who are less well placed to face the rigors of competitive common prices. This pressure will be exacerbated if proposals of the Commission and certain Agricultural Ministers of the Commission and certain Agricultural Ministers will allow real prices to fall sufficiently to eliminate surpluses is effective. Already tax incidence varies substantially between countries. Comprehensive information is not available but it is apparent from a recent study by the Centre for European Agricultural Studies that Danish, Dutch and United Kingdom farms all show far higher levels of income and capital taxation than in West Germany and Ireland. (And this takes no account of tax evasion). (45) Some doubt has to be cast on the efficiency of a common market if the allocative pressures which this generates can be significantly offset by tax policy or indeed, availability of grants, subsidies and other support.

Other developments in taxation policy in the EC in the latter part of the 1970s have done little to undermine the more priviledged tax status of the farm sector. In West Germany, the Agriculture Minister Josef Ertl managed to ensure that revision of agricultural income tax regulations in 1979 did not impinge significantly on farm incomes. The introduction of Capital Transfer Tax in the United Kingdom during 1974 and 1975 was accompanied by the provision of Agricultural Reliefs permitting 50 percent reductions in the value of owner-occupied land for tax purposes. And in the 1978 budget the United Kingdom introduced two-year tax-averaging for farmers to ease their tax burden. In Ireland, the 1978 Finance Act reduced the threshold of eligibility for farm taxation, thereby widening the tax net. At the same time, it was made easier to opt to have income tax assessed on the basis of presented accounts; if this were preferred to a national assessment. (2) In Austria, officially defined unit values of farmland were increased recently by about 25 percent with general repercussions for annual and capital tax levels. Unit values remain, however, substantially below the market value of farmland.

Capital Taxes - The Danish Example

Wealth and property taxes, which are raised by a few OECD governments clearly have implications for farm structure, although much depends on land values and the particular stipulations and exemptions applied to agriculture. To date, these taxes do not seem to have noticeably slowed the steady increase in average farm size in all OECD countries although they may have discouraged the growth of very large farms. In Denmark, where size limits are imposed as well as a wealth tax, there are very few large farms, but an increasing proportion of land is in holdings of more than 50 hectares.

Denmark's agricultural taxes have attracted a great deal of attention over the last year, following the imposition of a land tax in November 1979, under rather unusual circumstances. Following an agricultural investment boom in 1977-79, farmers found their incomes falling in real terms in the summer of

1979 as a result of low prices and a heavy debt burden which was aggravated by Denmark's exceptionally high interest rates (around 17 to 20 percent on long-term loans). When the Danish Krone 7/ was devalued by 5 percent in November 1979, the "green Krone", the unit used for setting EC price levels in Denmark, was devalued by the same amount - theoretically increasing the farm sector's income by about 800 million Krone. Since the government had imposed a severe price and income squeeze at the beginning of the month it was felt that the farmers should not benefit from a sudden improvement in their incomes at a time when restraints were being imposed on everyone else. Consequently a package of measures was introduced which had the net effect of raising farm taxes by about 800 million Krone, thus wiping out the overall benefits of the devaluation. The package included an increase in wealth tax and the abolition of a 10 percent investment allowance, but the principal measure was the introduction of a new land value tax at the rate of .7 percent for 1980. (46) This tax will discriminate against large farms, particularly if they contain areas of woodland or unproductive land.

The tax proved highly unpopular, especially since real farm incomes fell by about 13 percent in 1979 and were expected to fall by a further 10 percent in 1980. Farmers protested vigorously against the Government's attitude and one concession was made - the state agreed to guarantee credit up to a maximum of 700 million Krone, with an interest rate subsidy of 5 percent. (47) This concession affected only 1,000 to 2,000 of the most indebted farmers and protests continued, with some farmers considering an investment strike. In fact, with low prices, 20 percent interest rates and stagnating land prices, the effect of the land value tax has been to further discourage investment. Demand for agricultural machinery in the first six months of the year was 50 percent below 1979 levels (48).

More recent newspaper reports suggest that the government is thinking of reducing taxes affecting farmers including the wealth tax, capital gains tax and breeding herd tax. The severe depression in the industry has caused some alarm and the government is apparently proposing to provide additional assistance by channeling approximately 2 billion Krone into the farm sector from the assets of pension funds and life insurance companies. (49) In reporting this development the Financial Times suggested that the proposal had not been well received. "The plan . . . has yet to be agreed with the funds or with the other political parties (the government doesn't have a majority on its own). The plan is also opposed by the central bank on the grounds that the money will be diverted away from purchases of government bonds, affecting control of the money supply." (49)

Taxation and the Let Sector - The UK Example (50)

In the United Kingdom's let sector, where farmland is rented or leased by the operator from the, owner the burden of taxation falls heavily upon the landlord. He is subject to the Capital Transfer Tax, Capital Gains Tax, Development Land Tax, Value Added Tax 8/ and an investment income surcharge, without any of the reliefs available to the owner occupier. This is creating

7/ In 1979 the average exchange rate was 5.2610 Kroner per U.S. dollar.

8/ The major types of taxes faced by farmers are Capital Transfer Tax on lifetime transfers of wealth from one person to another, Capital Gains Tax on the disposal of chargeable assets and Development Land Tax on the development of any land disposals.

considerable problems for private landlords who are being forced to sell or to become more involved in farming itself, often by taking land in-hand. It is widely agreed that any substantial diminution of the let sector is undesirable, particularly in the United Kingdom where the comparatively large farm size together with high land prices, makes the let sector the only opportunity for independent farming for those without very large amounts of capital. Further, a move towards in-hand farming could give an impetus to the amalgamation of already large farms, which would have little justification from the point of view of efficient use of resources. However, there are considerable problems, involved in easing the tax burden upon private landlords. In particular, a privileged tax status would directly contradict taxation policies designed to reduce inequalities in wealth. In view of this, the Northfield Committee rejected the possibility of any fundamental relief of the tax burden of the private landlord. They did, however, recommend a number of specific reliefs designed to recognize that land ownership is often not a passive investment and entails management and administrative responsibilities which should be recognized in their tax status.

Their suggestions included that: there be a degree of indexation of Capital Transfer Tax and Capital Gains Tax; the payment period for Capital Transfer Tax be extended; there be some deferment of Capital Gains Tax for lifetime transfers within a family; landlords' management charges could be set against income tax; Value Added Taxes should be recoverable on repairs and maintenance on let land; and, there should be some changes to the rules for Maintenance Funds.

It was also felt necessary that the Agricultural Departments and Internal Revenue monitor important trends in acquisition and tenurial structure and carry out quickly changes that might be necessary. This will require urgent government action to improve existing information on general patterns of ownership.

LIMITS ON FARM SIZE

Limitations on farm size take several forms including restrictions on land ownership and control of output per farm. Agricultural production will be affected differently by each method of limitation. In particular, limits on the land area which can be farmed by one person are likely to encourage a more intensive use of land, whereas limitations on stock numbers might be expected to have the opposite effect. The method chosen will depend upon the goals, which might include:

1) maintaining the farm population, attempting to stem rural depopulation and improving environmental quality;
2) maintaining a large property-owning class;
3) providing opportunities for new entrants to farming on their own account; and
4) discouraging particular types of farming such as large-scale intensive livestock production in Switzerland and Norway and production of arable crops in Denmark.

The principal advantage claimed for size limits is that they are generally direct and unequivocal. Although it would be possible to influence the number of farmers and size of holdings by manipulating a great range of policies such as taxation, price, and grants, the same result might be achieved more directly and cheaply through legislation. There are, however, a number of possible disadvantages to legislated size limits. These include: the potential for evasion; the disincentive effects; the inhibition of technical advance; the discouragement of production at least cost; and the fragmentation of existing holdings already larger than the size limits. However, it is not clear that any of these difficulties are insuperable. Limits on land area farmed as a single unit in Denmark, Sweden and France do not apply to holdings already above this size. Furthermore, limits can be raised as underlying economic conditions make it appropriate; this has occurred twice in Denmark during the past decade. We have not been able to establish to what extent evasion occurs in practice. The size limits which operate in France are not rigorously enforced in a number of areas (51); but this reflects the will of the enforcers rather than inherent administrative difficulties. It is possible that where, as in Denmark, there is widespread and multilateral support for size limits, the policy can be effectively self-policing.

It is worth noting that a limit upon farm size does not prohibit structural improvement by amalgamation. Indeed, it should ensure that land available for amalgamation is used to improve the structure of smaller farms. It appears that the land market alone, even when directed by incentives favoring amalgamations within the small farms sector, as has been the case in EC, cannot be relied upon to ensure that land changing hands is used where it would most benefit farm structure (52). The financial leverage of established larger farmers is a formidable force in the land market which it is difficult to regulate effectively without legislation.

There has recently been considerable activity on size limits within Europe. In Denmark, from January 1979, farms cannot be amalgamated to form a holding of more than 75 hectares (52). This marks a strengthening of the policy which permitted creation of holdings of up to 100 hectares. Farmers are still able to hold two units of this size. As well as aiming to maintain a sizeable rural population, Danish policy is designed to discourage crop production in favor of the higher value-added livestock products which contribute so significantly to exports. In Sweden, the 1979 Land Acquisition Act, legislation which clearly borrows from the Danish experience (2), permits the refusal of permission for farm enlargement. In France, where size limits are enforced with differing severity in each region, there is apparently increasing pressure from farmers to apply the laws more rigorously (52). In 1979, a Committee headed by Lord Northfield to enquire into the Ownership and Occupancy of Agricultural Land considered the application of size limits in the United Kingdom, but failed to reach a unanimous conclusion. The majority, while recognizing the role which size limits might play in helping to prevent rural depopulation and environmental damage, rejected them largely on the grounds that they would be difficult to enforce and might retard technological advance. In a minority report, statutory restriction of occupancy to not more than 2,000 acres (800 hectares) was recommended. The Government has yet to respond fully to the Report, but it is extremely unlikely, that the present administration will choose to adopt statutory size limits.

As from 1980, Switzerland is adopting new measures for the control of unit size in livestock production (53). Stocking levels above those shown below will, after a 12 year transition period, incur a penalty levy:

	Regulation maximum level	Maximum level recommended by the Farming Association
Adult fat cattle	250	150
Veal calves	200	80
Sows	150	100
Fat pigs	1,000	100
Breeding and fat poultry	12,000	6-8,000

As the second column shows, the actual regulation is substantially more lenient than the position adopted by the Farmers' Association. Special premiums will be available to help larger farmers undergo a process of transition, together with incentives for them to leave production altogether. Additionally, a regulation which makes it compulsory for producers to apply for planning approval before putting up new pig stalls and poultry houses has been in force for 2 years. This has now been extended and made more restrictive. In particular, permission will not be granted where the income from intensive livestock production exceeds Sfr 60,000 9/ or accounts for more than one-half of the producer's income. These regulations aim to assist the small family farmer and to discourage the more intensive forms of livestock production. In Norway, similar regulations have existed since the mid-1970s, and no farmer may fatten more than 500 pigs a year or keep more than 2,000 hens or 35,000 broilers without a, not readily obtainable, license (54).

LAND PRICES AND SOME REGULATION INITIATIVES

In the EC, agricultural land prices have increased rapidly over the last 6 or 7 years. High price levels are seen as a barrier to the restructuring of agriculture, and entry to farming is also made more difficult. For the farmer, high land prices are associated with a high level of capital taxation, for example, in the form of capital gains tax. This has brought demands in North America as well as Europe for the exclusion of foreign nationals from the farm land market (55).

In general, agricultural land values tend to be closely related to current and expected future net farm income per hectare. This need not be a stable relationship, particularly as expectation of future returns can be volatile and influenced by speculative pressures. Furthermore, the attractiveness of agricultural land as an investment is influenced by returns available from other investments outside agriculture. As these opportunities in recent years have tended to be comparatively poor, investors have moved to increase the proportion of agricultural land in their portfolios (56). The potential suitability of agricultural land for non-agricultural uses can greatly influence its value. The demands of urbanization, industrialization and recreation have provided an upward pressure on prices, particularly in the urban fringe and areas where second homes and "horseyculture" are popular. In the more affluent EC countries where the urban population is more dispersed,

9/ In 1980 the average exchange rate was 1.6749 Swiss Francs per U.S. dollar.

such as Belgium, Germany, and the Netherlands, these factors have had a significant influence upon land prices.

One way in which governments have responded to difficulties created by high agricultural land prices is to provide substantial credit, favorable mortgage terms and capital grants. In France, for example, interest subsidies of 4.5 percent are given on loans of up to F $150,000 10/ and 7 percent on loans of F 150,000 to 300,000 with a repayment period of up to 30 years. In Germany there is a subsidy of 3 percent on interest. For loans made for relocation of farmsteads, only 1 percent is charged. For farm consolidation, an urgent problem in some areas, there is an interest subsidy of 5 percent, increasing to 7 percent in less favored areas. (56)

Subsidized interest rates are also available in Italy, Denmark, Belgium and Luxembourg. In the United Kingdom by contrast, there are no special subsidies for loans for the purchase of farm land. The difficulty is that although these concessions make land purchase easier, any advantage to the farmer is likely to be lost by the increase in price which usually follows as a response to the rise in demand.

An alternative approach is to try to deflate the demand for agricultural land. This can be attempted by excluding some groups of investors, such as institutions, foreign nationals, or simply "non-farmers", as purchasers. One would expect this to be effective only if high demand for agricultural land had been dependent upon funds from these sources. However, the view of the Northfield Committee was that, in the United Kingdom, where institutional and overseas purchases tend to be larger than elsewhere in Europe, demand by farmers was the leading factor in agricultural land price rises (41).

Where non-farmers are excluded, this may largely eliminate speculative purchase, although it is not obvious that this should do more than dampen price fluctuation, rather than price levels, except in areas where the land value reflects a potential non-agricultural use. Where this latter occurs, vigorous enforcement of strict zoning measures would help reduce the upward pressure on agricultural land values from a non-agricultural use.

Recently, there has been growing concern about rising land prices and a few countries have attempted to legislate to limit further rises. The Netherlands, with land price rises of 4 to 500 percent between 1972 and 1980, has probably the highest prices in the world. In late 1979 and early 1980, however, land prices fell about 25 percent in some parts of the country. Although this was due in part to such factors as high interest rates and farmers' low capital reserves, another major reason was thought to be the probable introduction of new land legislation in 1980. The new law is designed to hold down land prices and prevent speculation by imposing on the buyer certain conditions ensuring that the land will be used for agriculture. (57)

10/ In 1980 the average exchange rate was 29.243 French Francs per U.S. dollar.

Comprehensive legislation recently introduced in Denmark is also designed to keep farm land in agricultural use and limit speculation. This 1977 legislation is part of a nationwide effort to coordinate agricultural, environmental and industrial policies concerning land use. It includes powers to enable the Minister of Agriculture to intervene in order to prevent the transfer of farm land to non-farm uses. It also requires regional and local authorities to zone particularly valuable agricultural land solely for agricultural use. A farm must be maintained as an independent unit and the land must be used appropriately and commercially for agricultural purposes. Residential buildings must be maintained on the farm and the person who operates the farm must settle there permanently. To acquire or rent a farm on the open market without permission, a purchaser must be at least 18 years old, comply with rather strict training requirements, have farming as his or her primary occupation and reside on the farm. The husband or wife of a farm owner can acquire a farm in a rural zone by inheritance, divorce or undivided possession, but any other succession is conditional on the successor taking residence on the farm. Companies, cooperatives or other institutions can only acquire farm real estate by special permission generally granted for agricultural or scientific purposes only (41).

PURCHASE OF FARMLAND BY OVERSEAS BUYERS (50)

Many countries limit foreign purchases to a greater or lesser degree. In Switzerland there is a five-year residence requirement with special rules for those living abroad. In New Zealand there is also a residence qualification. In Canada the situation is complex, but basically the purchase of agricultural land is "subject to review" under recent legislation, and some provinces impose restrictions and conditions on land purchases by foreigners. In countries where agricultural land is scarce such as Finland and Norway, restrictions are particularly stringent. In Finland, government permission is required before any foreign national can acquire, lease or occupy arable land for more than a two-year period. In Norway, a government permit is needed before agricultural property can be acquired and applicants must have farming qualifications.

In theory, members of the EC are bound by the Treaty of Rome not to discriminate against citizens of other member countries. However, a number of countries have taken certain actions to limit foreign ownership.

In Denmark, Promulgation Order No. 458 of 1973 was introduced partly in response to fears that EC membership would result in a large number of foreigners buying Danish agricultural land. It ensures that farms are bought only by those intending to live on the land. In order to buy such a farm it is necessary to have undergone agricultural training equivalent to that found in Denmark or to have had at least two years practical farming experience in Denmark. Prospective buyers from non-EC countries must obtain permission from the Ministry of Justice.

In the Netherlands, rising land prices have resulted in a bill to curb the rate of increase and prevent speculation. (See section on land prices). This legislation is not aimed at preventing EC purchasers from buying Dutch land and although the issue causes controversy in the Netherlands, the numbers of foreigners who have actually settled is small.

In fact, given the pressure on land, the movement in the Netherlands is generally in the opposite direction. Land prices are so high that second sons, for example, are often forced to buy abroad. The Central Rabobank, the major cooperatively owned source of finance for Dutch agriculture, has introduced mortgage facilities for buying farmland in other countries, although they encourage farmers to search for finance from banks in the country of adoption. Their interest charges on loans are 0.5 percent higher than for domestic purchases and are restricted to 50 to 60 percent of valuation. With new legislation to control the domestic land market due in late 1980 and with no limit on the transfer of Dutch currency to buy farms abroad, there are fears that an increasing number of Dutch farmers will be seeking land abroad.

There is no legislation specifically restricting foreigners buying farmland in France, yet between 1966 and 1975 only 0.2 percent of the total national agricultural area, 70,000 hectares, had been bought by them. Over half of this area was purchases by Belgians, followed by the Dutch, Italians, Germans and Swiss (58). While French farmland is accessible to foreigners in theory, in practice France imposes exchange controls on all capital movements inwards and outwards. This means that applications by foreign individuals or companies for permission to buy farmland has to be submitted to the Investments Committee of the Ministry of Finance. The Ministry of Agriculture can refer any surcharge application to the local SAFER (Land Improvement and Settlement Company) who purchases land within a given area and resells it to farmers to improve the viability of the local farming structure. The SAFERs have the power to veto purchases which they regard as undesirable from the point of view of local structures. More recently there has been an increase in the purchasing of farmland in the South West of France by Dutch and Germans, frequently for second homes. This resulted in local opposition and the trend has been reduced by the tightening of controls by SAFERs and frequent refusals of permission to build houses on the land to be purchased. (59)

In Ireland the consent of the Land Commission for rural land sales, part of the Department of Agriculture, is required where the holding is being sold to a "non-qualified" person.

One of the definitions of a "non-qualified" person was a non-Irish citizen who planned to adopt the same production practices as Irish farmers. Following membership of the EC, people from other member states were allowed to acquire farms in Ireland if a number of conditions were met. Land could only be purchases if it had been abandoned or left uncultivated for more than two years, or if the purchaser had worked as a paid agricultural worker for an unbroken period of at least two years. Foreigners could change farms if they had been established in farming in Ireland for more than two years, or could lease farms in Ireland if they were established, or were in the process of establishing themselves in farming there. These measures are considered discriminatory by the EC and are at present being looked at by the Irish Government.

In Great Britain, just over one percent of the total area of agricultural land, between 200 to 300 thousand hectares is estimated to be owned by foreigners, and about a third of that is sporting estates. The

majority of the purchasers have been Dutch, although there have been purchases by American and Middle Eastern interests and, on a small scale, by individuals from Scandinavia and other EC countries.

Britain is a popular choice for foreign buyers because of the relatively low price of agricultural land and the good farm structure which allows farmland to be bought or occupied in larger blocks than on the continent and often with better fixed equipment and buildings. Other advantages include immunity from British taxation if classified as non-resident and the relative ease of acquisition of land compared with the restrictions in other countries as outlined previously.

It is expected that in the next five to ten years this trend will continue and concern about the situation has led to suggestions that the British Government should obtain more detailed information than it possesses at present. It has also been proposed that any purchase over 5 hectares by residents of other EC countries should be recorded by the Government as they occur and in the case of non-EC buyers, there should be an obligation to register purchases. Such procedures would provide information which could then be reported regularly to Parliament. It has also been suggested that the Government should carry out some advance planning and introduce legislation, if necessary to provide reserve powers to be brought into use if overseas purchasers reach unacceptable levels, although such powers shouldn't be directed towards working farmers. If necessary these powers could extend to EC residents with a suitable amendment of the Treaty of Rome.

PURCHASE OF FARMLAND BY INSTITUTIONS

On the question of institutions such as insurance and pension funds purchasing agricultural land, this has only been a problem in Britain, since all other countries have managed to avoid this.

In France, for example, this has been achieved by the use of foreign exchange controls and in Germany by the Land Transfer Law (Grundstuckverkenhrsgesetz), whose basic aim is to maintain "farmers" land in farmers' hands. (60)

In Denmark, companies and institutions can only acquire land with the permission of the Ministry of Agriculture and then only usually for special purposes, such as experimental or research work.

At present financial institutions own about 214,500 hectares in Britain, about 1.2 percent of all agricultural land. While it has been recommended that such acquisitions should be closely monitored, at present, there is only modest pressure for legislative controls.

ENTRY OF YOUNG PEOPLE INTO FARMING (50)

Entry into farming is usually through inheritance or succession of tenancy. For those trying to enter farming from the outside things have always been difficult, except in times of agricultural depression. The position has become even more difficult over the last few years because of the ever-increasing amount of capital required to buy and equip a farm and the growing prevalance of high interest rates.

Not all countries have specific policies to help young people enter farming. In Denmark there is very little land available for rent and so just about the only way to enter farming is to buy a farm. Land is expensive in Denmark and has been rising ever since accession to the EC. Even farmers' sons traditionally buy rather than inherit their parents' farms thus providing the parents with capital to buy retirement houses and to pass on an inheritance for non-farming brothers and sisters. Credit is easily available from a number of sources and for young farmers with recognized agricultural training or experience there are establishment grants of 2.5 percent of the purchase price of the land with specific limits, and a subsidized loan of up to 10 percent of the purchase price. It is common for young Danish farmers to borrow up to 90 percent of the cost of their businesses and to depend on the spouses' off-farm income for the first few years. Land prices are also kept lower than they would be in a free market situation by restrictions on non-farming buyers of farms and upon the maximum acreage that any one person may farm. This goes some way towards making it more feasible for young farmers to buy a farm.

In France it is official policy to settle 15 thousand young people on farms annually. The main reason for this is the fear of rural depopulation in large areas of France where too few young people want to enter or stay in farming. In the mountainous and less favored areas the working conditions and prospects are poor and the average age of farmers is high. (43) To encourage new tenants, establishment grants and heavily subsidized credit is available from the Credit Agricole, the major source of agricultural credit and one of the most important banking groups in France. Establishment grants were originally limited to the hills and less favored regions, but now cover the entire country. The applicant must be a farmer under 35 years old, setting up for the first time, on a farm of less than 80 hectares and at least equal to half the minimum acreage necessary to meet the official definition of a "modern farm". Evidence must be shown of farming competence and the ability to keep accounts.

Up to 90 percent of the cost of the land purchase can be covered by loans from the Credit Agricole and there are also special young farmer loans which cannot be used to purchase land but which can be up to a maximum of 250,000 francs and have an interest charge of only 4 percent. The main beneficiaries of these measures have been young people whose parents are in farming.

In Belgium, there is special financial assistance for young entrants. With the proper experience and training one wishing to enter farming can obtain an interest subsidy of 5 percent with the borrower paying a maximum of 3.7 percent and provisions for the Government to secure up to 75 percent of a loan. Both the interest subsidy and the loan security are for a period of 18 years with a repayment grace period of 3 years maximum. To be eligible for this aid the farm must be capable of generating a specified level of income which varies regionally. (43)

New Zealand is the country with the most varied range of policies geared to help new entrants into farming. The Special Settlement Loans Scheme has as its aim the settling of young farmers with suitable qualities of "thrift, initiative, and outstanding ability to manage a farm enterprise", and

who would not otherwise have the opportunity to buy a farm. The Rural Bank and Finance Corporation a quasi-government department, loans up to 85 percent of the cost of the land, buildings, stock and plant at an interest rate of 1.5 percent below the farm purchase rate for the first 3 years. The repayment terms are flexibly administered to accommodate fluctuations in farm income. To qualify the applicant must have supplied a reasonable proportion of the remaining 15 percent from personal savings. Preference is given to applicants between the ages of 25 and 40, with some qualifications and their own transport. Most loans are made for the purchase of sheep, dairying or mixed-crop farms, though other types of agricultural enterprises may be considered. (23).

A novel method of providing farms for new farmers in New Zealand is the Land Ballot Scheme. About fifty farmers are settled by this scheme each year. The land is initially taken over by the Department of Lands and Survey and usually consists of large semi-developed farms which have been worked for a number of years and developed by the Department. At the end of the development period, the land is split up into one-man farms of about 120-160 hectares (300-400 acres). To qualify to enter, applicants must be 25 years or over, with a minimum amount of cash, practical experience, and a Trades Certificate Board qualification in farm management. The Rural Bank and Finance Corporation will lend up to 60 percent of their valuation of property at interest rates below the market rate.

Share farming also provides an avenue for new entrants to obtain their own farm. Under this system a special sort of partnership agreement is reached under which the landowner provides the land, while the sharefarmer provides set proportions of the working capital for an enterprise. Managerial responsibility is split and the gross or net profits are divided according to a prearranged formula. Several types of share-farming or share-milking agreements are recognized by laws which set out in detail both parties' obligations and remunerations. Under these arrangements, sharemilkers are generally able to move up the farming ladder and eventually own their own farm.

Suitability qualified and experienced farmers are also helped in purchasing their own farms by a scheme to encourage elderly farmers to retire and also to invest in the industry. If a retiring farmer sells his or her farm to a new farm purchaser, then 50 percent of the interest earned on any of the retired persons' money that remains invested in that farm is exempt from taxation. (23)

In the Netherlands, on the other hand, there is no state aid for young entrants, the view being that there are already enough would-be entrants and the Government is considering reducing the demand by insisting on relevant qualifications. Where new land has been reclaimed on the Ysselmeer for example, the land has been sold at very high prices or has been let to farmers after the most rigorous selection according to experience, technical competence and financial standing. (43) Although no preferential funding for young entrants is available in the Netherlands, credit is relatively easy to obtain through the State Land Board and the Centrale Rabobank. This major cooperatively owned source of finance for Dutch agriculture, provides 80-90 percent financing for agriculture and horticulture.

Openings are created for new entrants indirectly by a generous Government pension scheme which with the EC cessation scheme, EC directive 72/160, encourages farmers to retire at 65. A current Government proposal aimed at making more land available generally would make it mandatory for tenants with no successor to retire at 65.

In Ireland there is no special assistance for new entrants but it appears that the Government doesn't regard it as a problem. The Irish Land Commission acquires untenanted estates, divides them into viable units if they were not being farmed effectively and allocates them to the best small farmers. These are selected on the basis of experience with preference given to those with a family which is likely to succeed them in farming. No priority is given to new entrants. It is thus very difficult to enter farming without inheriting land or money.

In Britain there is also no special government aid for new entrants, although with 35 to 40 percent of the agricultural land farmed by renters, new entrants are in a slightly more fortunate position than those in countries such as Ireland or Denmark where there is very little rental land.

Young entrants in all countries are faced with the problem of high land values and it has been suggested that one way around this is for the banks to take a share in the capital value of the land. This share would be in the form of a first mortgage which would remain on a particular farm for a fixed term, no matter how many times it changed hands. When the holding changed hands it would be sold with the mortgage. The new buyer would then take on the mortgage for the remainder of its term. In return for this share in the capital growth in the banks could offer loans to farmers at very low interest rates, thus helping the new entrant. (61)

It has been suggested that the farming industry in Britain could help new farms by providing part-time or "starter" holdings up to 40 hectares on large farms or estates. Financial institutions purchasing estates should have a policy of retaining small farms or creating new ones where possible for this purpose. These small units, apart from providing a start for young farmers, could be a valuable source of part-time or seasonal labor and could contribute to the cohesion of rural communities by keeping people on the land.

The reasons for developing policies to help new entrants in farming vary and have to be considered in the context of the structural policies of each country. In France, the activities of the SAFERS reflect the priority given to family farming. In Ireland, the overiding priority is structural reform, while in Denmark and the Netherlands the concern is with land-price inflation.

PRICE POLICY

The principal instrument of agricultural support in most OECD countries is price policy. Governments are rarely content to allow the market mechanism to operate unaided in the agricultural sphere for a number of political, economic, strategic and social reasons. However, the desire to maintain or increase self-sufficiency for important commodities and to provide farmers with a "reasonable" income are the two critical policy objectives, especially

in those countries where the farm vote still holds sway. Support for farm prices can be provided in a multitude of different ways, but the common target is the provision of an adequate level of incentives for producers. The most favored approach is a combination of protective tariffs and regulated markets which provides overall protection for farm incomes and farm output and in the process has a powerful influence on farm structures.

More often than not, price manipulation is the center-piece of agricultural policy, and with prices set in relation to several different objectives it is not surprising that the results have left much to be desired. In the EC, for example, the Common Agricultural Policy (CAP) relies heavily on price guarantees for achieving its stated objectives which are somewhat disparate in character, and require a rather less blunt instrument if they are to be satisfactorily coordinated. Whereas the objectives of ensuring continuity of supplies and stable markets have been largely met, there has been much less success with other objectives such as making the optimum use of resources, supplying consumers at reasonable prices and providing a fair standard of living for the farm labor force. Furthermore, the excessive cost of the policy is threatening to overwhelm the Community's budget, and there is considerable dissatisfaction among the EC's trade partners. Without in any sense belittling the difficulties to be overcome by the CAP, it must be observed that the failures of the policy have been considerable and that this has been due in no small part to the rigidities of the price policy and unwillingness of agricultural Ministers to curb the upward movement of prices. The short-comings of the CAP are familiar and will not be rehashed here. Rather, we will attempt to show some of the difficulties of using price policy as a structural measure, taking the CAP as an example. In essence, the CAP price policy is the major determinant of farm economics within the Community and farm incomes in particular. In so far as price setting determines farmers returns for a particular commodity, it influences farm size, the extent and nature of resources used in agriculture and the cropping patterns adopted. At the most basic level, price setting allows the protection of a group of farms which would not be viable in an open market. To illustrate this, it is worth looking briefly at Table 6, which shows the average and "threshold size" of farms in the Member States in 1976/77.

The "threshold size" is estimated by the Commission and is a measure of the minimum size of farm which is likely to be economically viable in the physical environment and economic circumstances of the country concerned. In this case, the measure of viability is the ability of the holding to provide the farmer with a good chance of earning at least 80% of "comparable income" of the average non-farm earnings in the locality. As non-farm incomes rise, there is increasing pressure to increase farm size in order to keep up. It will be seen that threshold sizes vary considerably within the EC, although the importance of part-time farming in some countries, such as Germany, must be kept in mind. Other factors affecting threshold size include land quality, degree of mechanization, cropping patterns, aids and subsidies, price levels, welfare policies, and off-farm incomes. However, the price level plays a vital role and it is not uniform throughout the Community, partly because of the "green money" and "MCA" arrangements. On some occasions, German butter prices have been about 40 percent higher than UK prices. These variations in price have had a considerable impact on structures, for example, cushioning small farms in Germany, and have been a barrier to a more optimum use of

Table 6: Actual farm size and threshold size required for varying levels of farm income in the EC by country, 1976-77

Country	Actual average	Threshold required to provide farm income equal to specified levels of prevailing nonfarm incomes	
		80 percent	80-120 percent
		- - - Hectares - - -	
Germany	13.8	22	29
France	24.3	26	29
Italy	7.8	8	12
Netherlands	14.4	15	19
Belgium	13.9	15	18
Luxembourg	23.5	40	44
United Kingdom	64.3	65	103
Ireland	20.5	22	28
Denmark	22.8	27	36

Source: EEC. The Agricultural Situation in the Community. 1978 Report, Brussels-Luxembourg, January 1979.

resources at the Community level. However, while this illustrates the draw-backs of reliance on price policy at a supra-national level, it has limited relevance to individual States and won't be pursued further.

Perhaps the most fundamental deficiency of price policy as a structural measure is its inflexibility, especially if other means of regulating farm incomes are either weak or not available. If additional means of supporting the most vulnerable and least viable farms are not utilized, it is difficult to avoid a high price level, which is usually unsatisfactory from other points of view. It is inherently difficult to provide one group of farmers with higher support prices than others. Although differential price systems are now in use in Scandinavia, there would be both practical and political difficulties in applying them within larger countries. Differential pricing has arisen in a largely unplanned way under the CAP and has reflected political more than structural priorities.

The CAP is not untypical in that prices are set primarily in relation to farm income goals, generalized to the Community level. In practice this has meant that price levels have varied between commodities in accordance with the strength of political and economc pressures and the annual price adjustments have had the overall effect of broadly satisfying income demands while permitting an annual decline in farm numbers of around 2 to 3 percent. This rough and ready structural policy has forestalled a more rapid exodus, but it has proved insensitive to the needs of less favored areas and provided excessively large incentives to farmers on more profitable holdings. In general, it can be observed that if price policy becomes the major determinent of farm incomes, there is inevitably enormous pressure from the agriculture sector to keep prices moving upwards, irrespective of market balance. Budgetary and structural considerations are often set aside in the face of sustained pressure from agricultural interests which are able to exert considerable influence in many countries because of the importance of the farm vote.

The significance of the farm vote is often exaggerated, but where it is well organized and has capable spokesmen in government, it can have a remarkable influence on policy. In recent years, Josef Ertl, the German Minister of Agriculture, has consistently argued for higher prices and resisted attempts to reduce milk output on the strength of a real or imagined power-base among Bavarian farmers. Equally, the French government has shown itself ready to go to considerable lengths to protect the interests of groups of farmers, such as the sugar beet growers of Northern France and the sheep farmers of the Limousin region. Where farms are small and numerous, as in Bavaria, the agricultural vote is obviously an important barrier to structural change, whether or not it is appropriate. However, the leaders of the farming community do not necessarily take much account of the needs of poorer regions or of marginal farms in areas where alternative employment is scarce. If, as often happens, both government and the farm lobby concentrate their energies on negotiations over price levels, structural issues are often neglected. In the EC the farm lobby is opposed to price cuts for certain surplus commodities, which combined with special aids for disadvantaged and marginal farms might improve market balance and farm structures. Small farms which might benefit from such a development are not well represented although they are likely to suffer most if prices should rise to the point where the EC

budget is no longer able to support the burden and farm incentives are cut back suddenly. This point may not be far away, with the 1980/81 Community budget within 5 percent of the agreed limits and the likelihood that budget limits may be reached in the next two years.

Once high price levels have been attained it is not just the farm lobby but others who are opposed to trimming them. EC price levels have encouraged farms to become highly capital intensive in an effort to raise yields and cut labor costs. Leaving aside arguments that this is a poor use of resources, increases dependence on fossil fuels and accelerates environmental degradation, it undoubtedly provides an expanding market for the agricultural supply industry, especially agro-chemical companies and farm machinery manufacturers. Private storage companies in the EC have made the most of opportunities offered by the intervention system. Stocks of skimmed milk powder, for example, have sometimes exceeded 1.2 million tons. Since intervention prices are especially generous in certain places, Germany, for example, railways and haulage companies have also benefited from the system. Commodity traders are able to take advantage of export rebates on surplus commodities to create markets overseas and there are opportunities for speculating on rebates, levies and green currencies. (62). Certain regions of the Community and special interest groups have flourished under the CAP, mainly because of the high price levels. Between 1970 and 1978, milk deliveries to the dairies rose by 61 percent in Ireland, 42 percent in the Netherlands and 27 percent in the United Kingdom (63). In Ireland, the gross output of companies producing dairy products, beef and lamb rose from 283 million to 1,357 million Irish pounds 11/ between 1972 and 1978 (64). Indeed, it has been calculated that in 1978 the Irish GNP benefitted by about 1,000 million pounds or 17 percent as a result of the CAP and its price levels in particular. Improvement in the Irish GNP is to be welcomed, but the underlying problem is that high prices provide opportunities and economic shelter to a range of interests and businesses that subsequently resist any tendency to price restraint. The plight of the poor farmer is often elaborated skillfully as a central plank in the annual argument for higher prices, but in reality the multitude of other interests involved, including big farms, ae likely to get the largest share of any increased revenue. In this way, resistance to a tougher price policy is stiffened and the widespread notion that prices are set at a level designed to mollify small farmers acts as a barrier to more constructure structural policies.

The many other disadvantages of high price levels will be mentioned only briefly. First, high prices not only stimulate production, they tend to depress consumption and increase the extent to which urban residents subsidize farming. At the same time they are likely to distort international trade patterns. Second, surpluses are clearly a major problem, affecting many countries where price levels are excessive but alternative means of preserving farm employment have not been explored. Over-production represents a poor use of resources and is generally rather expensive in budgetary terms. Not only is the disposal of surpluses expensive, if often creates new problems, as in the case of inappropriate food aid or the dumping of exports on world markets. The EC has found visible wastage extremely unpopular politically and

11/ In 1972 and 1978 the average exchange rate was .3997 and .5211 Irish pounds, respectively per U.S. dollar.

discreet sales of cheap butter to the USSR have proved difficult to explain. Sales of surplus skimmed milk powder as animal feed have met less opposition but have been described as "having the oddity of helping producers who produce too much to use the excess to produce even more". (65)

In the EC, the extent of surpluses have become increasingly embarrassing, especially in the dairy sector, where over-production is thought to be in the region of 17 percent. In a recent report on the European dairy sector, the UK House of Commons Select Committee on Agriculture reviewed the available options. (65) These included increasing consumption by various subsidies, such as export aids, school milk, butter subsidies, animal feed subsidies, food aid, taxes on margarine, reduced imports from New Zealand and trimming distributors' margins. On the supply side, they considered non-marketing and conversion schemes, the abolition of investment aids, quotas, input taxes, production levies and price restraint. The measure which they considered to be the most efficient and direct was price restraint, although they were not very optimistic that this could be achieved. They regarded levies on producers as a second-best approach, and quotas as a third choice if agreement on other measures could not be reached. It is significant that they considered that special help for more vulnerable producers was undesirable, whatever the source. One reason for this was the prevalance of part-time producers who earned only a small proportion of their income from milk and consequently didn't merit subsidy.

For most objectives of structural policy there is no doubt that high price levels are an impediment. Farms that would not normally be competitive find it possible to survive and land prices are driven upwards (a process often accelerated by grants and cheap loans). High land prices with prospects of further appreciation decrease land mobility as there is a general reluctance to sell, in some areas leading to abandonment without offer of sale or contemplation of alternative uses. High land prices increase costs and have resulted in a steep rise in borrowing, while new entrants are presented with enormous barriers unless they have considerable private wealth.

Although it may appear at first sight that farms below the threshold size are the chief beneficiaries of high prices, this is not so. High prices are of most benefit to those who produce the greatest quantity and the biggest gains per capita are made by the biggest and most productive farms. Similarly, the rise in land prices is clearly most advantageous to those with the largest area of land, added to which many of the largest farms are to be found on the better land, which has appreciated most rapidly. In 1975, 6.3 percent of the EC's farms, those in the largest size category, contained 42 percent of the total utilizable area (5). Finally, small farms often have to pay more for some of their inputs and are at a disadvantage compared to big farmers when selling their produce. For example, in the EC, the intervention systems work at the wholesale level, and small farms cannot sell their raw products directly to the intervention authority, which will only buy milk in the form of butter or skimmed milk powder. Even grain can only be sold in minimum quantities.

Price policy alone cannot distinguish between inefficient farmers and those which merit social help. The latter group may include farmers in areas where conditions are very poor or holdings are small, but the structure is

appropriate for social and environmental reasons. Also to be considered are elderly and part-time farmers whose output cannot necessarily be regulated in the same way as that of other farmers. It would be possible to devise more sensitive policies aimed particularly at these groups and at disadvantaged regions as a whole. Such policies do not have to depend on production incentives and there is a strong case for making more use of direct income payments and selective quotas, which can be made negotiable and also saleable if appropriate. If such measures were in place and operating successfully, some of the barriers to a more flexible and less costly price policy would be removed without unnecessary social or structural damage.

The Case of Japan

Japan's staple crop is rice and the chief means of supporting several million very small farms and its rural communities has been the provision of generous support prices for rice. This has had the desired effect insofar as the small farm structure has survived, albeit on a part-time basis. However, the subsequent over-production has necessitated elaborate supply-control policies, which have still to achieve success on the scale required.

The disruptions of World War II meant that Japan had to mount a major effort to increase food production. Since the war the main objective of Japan's food policy has been to maintain a high level of self-sufficiency in foodgrains and to preserve the role of rice as its principle foodgrain. The mechanism used to do this has been pricing policy and Japanese support prices for basic crops are among the highest in the world. In 1960 the average price paid to producers was twice the world price, by 1976 it approached four times the world level. (66)

In terms of self-sufficiency, these policies have been very successful, at least for rice. In fact, since 1970 rice has tended to be in surplus because of declining demand for foodgrains and increased competition from wheat. For other staples, such as wheat, barley, and soybeans, incentives to expand production have been ineffective and have not stemmed the decline in production of these crops. One of the major reasons for this is that it has been more profitable to grow rice.

In order to tackle the joint problems of overproduction of rice and underproduction of other foodgrains, Japanese food policy in the seventies has had two major thrusts. First, since 1971, the quantities of rice that qualify for support have been limited, with quotas assigned to individual farmers on the basis of past sales. Farmers also receive special payments for diverting rice land to other crops. This has led to a slower increase in the average price received for rice compared with other crops. Secondly, to halt the decline in rice consumption, the Japanese Food Agency, which handles all purchases and sales of foodgrains, is trying to maintain an appropriate ratio between the selling prices of rice and wheat. This has involved increasing subsidies on its rice sales to the public, which are partly financed by what

is, in effect, a substantial tax on wheat sales. By 1976 rice subsidies had kept the wholesale price 20 percent below the price paid to producers and at over 700 billion yen 12/ in 1975 was the largest item in the Ministry of Agriculture and Forestry budget. To limit this, the Government began in 1975 to narrow the gap between the purchase and selling price. (66)

The Government's latest and most comprehensive attempt to tackle the rice problem is the "Paddy Field Utilization Re-orientation Program" introduced in 1978. This differs from earlier attempts to curb rice production over a 3 or 5 year time span, to a longer term undertaking of ten years. The target of an annual reduction in output of not over 1.7 million tons for the first 3 years at least, is substantially more ambitious than the earlier target of 0.9 million tons, even though the latter had not been achieved. The range of crops eligible for diversification is wider, the payments are higher and a new scheme of diversion through intermediaries has been developed to encourage small part-time farmers to become involved. (67) The importance of this can be seen from the fact that about 90 percent of farm households in Japan have members working in part-time jobs. (68)

Previous schemes have had some success with large, full-time farms, but small, part-time farms have found it preferable to maintain their rice acreage and earn the main part of their living off the farm. This is because rice produces a relatively high return per unit area but it is essential to have a large area for other foodgrains in order to obtain a reasonable income. To enable small farms to become involved in diversification, they are to be encouraged to allow the management of their farm land to pass to large, full-time farmers more prepared to introduce new crops. Under this scheme, the small farmer received an income by loaning his land for diversification.

Additional payment is also available for farmers who participate in a 3 year plan which covers all farms within the boundaries of a "hamlet". The plan provides guidelines for the diversion of land away from rice to other grains and covers operations such as regrouping fields and adjusting irrigation.

In its first year of implementation the 1978-87 rice diversion schemes decreased the area planted by rice to 12 percent more than the target and in 1979 the target was exceeded by 21 percent. In spite of this, good harvests meant that production was 7.6 percent above what was projected, resulting in large stocks of about 7 million tons by October 1979. If this continues, the target reduction in area will have to be increased or another strategy devised. (2)

The Government has not merely concentrated on supply management measures. On the consumption side it has for some time supported campaigns for increasing rice consumption and recently it has concentrated on school lunch programs. The latter has the objective of both increasing rice consumption in the short term and affecting future eating habits in the longer term. These measures depend mostly on public education and not on direct restriction or disincentives and are therefore a long-term undertaking unlikely to have much effect in the immediate future. (67)

12/ In 1980 the average rate of exchange was 296.79 yen per U.S. dollar.

Conclusion

The relationship between price policy and farm structures is neither simple nor consistent from one country to another. Paradoxically, reduced prices may lead to an increase in production in the short term, even though there is more likely to be a fall in the longer-run at the least efficient producers drop out. However, it is difficult to predict farmers' responses to different price levels and sometimes it is the larger farms with heavy overheads and a substantial debt burden which find it harder to ride out low prices than small family farms with few financial commitments and little inclination to re-invest their capital elsewhere. High prices aid farmers but also allow the more efficient producers to accumulate considerable profits which can be used to take over additional land, although this may occur slowly, especially as land prices tend to respond quickly to changes in farm income. Despite these caveats, it is clear that in broad terms high price levels have been used to protect traditional "inefficient" structures, while low prices have resulted in larger holdings and greater land mobility, as in North America. As an instrument of structural reform, price policy lacks finesse or precision, but it has a dominant role in establishing the direction of change.

Experience in the EC and Japan suggests that high price levels can help to cushion the rate of structural change but that there is a tendency for prices to become excessive, especially in a period of fast technical change when inadequate price control can lead rapidly to surpluses. Since surpluses are expensive, wasteful and difficult to be rid of, experience suggests that there is a need to supplement price policy with a broader range of specific measures in order to make it possible to reduce incentives and bring over-production under control. In particular, this range could include selective supply control measures, direct income payments and more sensitive structural measures.

SPECIFIC STRUCTURAL AND RELATED POLICIES

The earlier sections of this survey have focussed on a range of economic, agricultural and social policy measures which have a bearing on farm structures. But discussion of specific policy measures has been more limited. Some explicit structural policies, such as aid for new entrants, have already been considered. However, a few measures remain to be mentioned or need to be considered in rather more detail than previously and this will be done under the following headings:

(1) Land consolidation and redistribution.
(2) Amalgamation and retirement incentives.
(3) Capital grants and subsidized credit.
(4) Supply control and direct income payments.

Since these categories contain several rather elaborate schemes and others tailored to the specific needs of individual countries the coverage will be brief and selective, relying on a few examples rather than detailed descriptions.

Land Consolidation and Re-distribution

The archetypical method of structural change in many European countries is land consolidation - creating compact farms out of fragmented holdings. Consolidation always involves the redistribution of parcels of land, which are often in the form of strips, but it doesn't necessarily mean that holdings are enlarged. The extent of government involvement varies, but it is not unusual for a special agency to be created with the powers to intervene in the market and buy land for subsequent resale to a "consolidated" holding. In the Netherlands more ambitious programs of regional rationalization have often accompanied consolidation efforts and the government has also had the role of creating entirely new structures in the polders reclaimed from the Zuider Zee. It is interesting to note that when reclamation work began in 1930, a ratio of one worker for every 5 hectares was established by the Netherlands government, but by 1968 planning was based on 30 hectares per person. (68)

The aim of consolidation is to create compact, more integrated holdings, permitting improved management, better use of resources, greater mechanization, and a reduction in movement between fields. In much of Europe, long fields containing individual strips sometimes dating back to medieval times have been replaced with a pattern of more conventional fields, clustered in a group, often adjacent to the farm itself. Consolidation has generally been accompanied by a rise in productivity, especially when irrigation and drainage has been undertaken at the same time. This is not uncommon, especially in southern Europe, where the process of consolidation has not advanced so far as the North, and where irrigation is gradually being extended to a larger area. In Greece, for example, consolidation has been required of those holdings benefitting from state irrigation schemes. (2). Government investment in irrigation is common in southern Europe, for example, in Spain in 1978, 41 percent of the 85,988 hectares irrigated were within a government scheme (2), while the area consolidated in that year was 110,000 hectares.

Drastically altered landscapes and more dispersed communities have been the hallmark of consolidation in many areas, especially where farmsteads have been shifted away from the traditional grouped settlement, so as to adjoin the new holdings. For this reason, consolidation has not always been popular; many small rural communities have found the prospect of social transformation and agricultural improvement anything but appealing. Resistance to change is strengthened by the complexity of land-holding patterns and the difficulty of reconciling consolidation with equal inheritance laws. In some parts of southern Europe, such as Portugal, large estates and semi-feudal conditions still survive and land reform is more in demand than consolidation. One of the central pillars of land reform has been the redistribution of land, especially the sub-division of large holdings, and this continues to take place, although not on a large scale in OECD countries. In Spain, 13,400 hectares were distributed in 1978 in order to make 1,130 new family farms, none of them extensive in area. (2) It is notable that both consolidation and redistribution are reinforcing the central position of small family farms in the agriculture of Europe.

Leaving aside the social and environmental impact of consolidation, the process has often been criticized as slow and tortuous, resulting in new holdings which are still much too small. Progress has been particularly slow

in Spain, Switzerland and Ireland and probably fastest in northern France. (1) In Germany, where consolidation laws were first introduced in 1953, it is estimated that about five million hectares still await consolidation, while a further two and a half million hectares already consolidated require further attention since the farms created are now regarded as too small. (68) New measures to accelerate the rate of change have recently been instituted in several countries, including Spain, Portugal, Greece and Finland. In Greece, about a third of the total agricultural area has been consolidated since 1955, partly as a result of state irrigation schemes, partly within voluntary schemes, using the simple device of a majority vote by plot owners. A law of 1977 offers new incentives, such as subsidized credit for land purchase, the redistribution of some state land, reduced taxation on the transfer of small plots of land, etc. (2) In Finland, consolidation and amalgamation is promoted by the National Board of Agriculture, which has a permit to acquire parcels of land of 2 hectares or above with the aim of keeping land in the agricultural sector. In 1978, the Board acquired 14,500 hectares and sold about 10,000 hectares to persons suitably qualified, imposing training and residency requirements of the kind now common in Scandinavia. (2)

The French system merits a brief description, since it is unusual and has achieved a relatively rapid rate of change. Change has been most noticeable since the "Lois d'orientation Agricole" of 1960 and 1962 ushered in an era of structural reform and created the SAFERS, but consolidation had been underway for some time and by 1960, 3 million hectares had already been affected. Consolidation or "remembrement" is administered regionally by the Agricultural Departments and works in parallel with the SAFER operations to increase the size of existing farms, rationalize land structures, stabilize the land market, subdivide very large holdings, renovate abandoned land and improve the agricultural infrastructure. Thus, the combination of a fairly conventional consolidation program, organized by the state, with the more flexible market-intervention schemes organized by the SAFERS, has resulted in structural changes throughout agriculture, with the emphasis between the two schemes varying from region to region.

The "remembrement" schemes had consolidated a total of 10.36 million hectares by early 1979, or about 35 percent of French agricultural land, with peak activity between 1965 and 1975. The forceful nature of the program and its not infrequent insensitivity to local social, agricultural and environmental factors made it unpopular in many regions, especially in the 1960s. The policy sparked strong protests in many poorer areas, notably in the west of France, and it was most successful in the richer areas of the North and East. North of the Loire Valley, more than half of the agricultural land has been consolidated, reaching 87 percent in the Ile de France. In the South, where consolidation might have been expected to be more useful, only 20 percent of the land area has been covered.

The SAFERS, by contrast, have been more active in the south and west of France, where land is sold more frequently, prices are lower and farms are considerably smaller. There are now 31 SAFERS, loosely translated as "Land Improvement and Rural Settlement Companies", each a nonprofit organization working within a given region. They are funded by a mixture of state subsidies, preferential loans from Credit Agricole (6 percent interest in 1978), contributions from cooperatives and professional organizations and the

proceeds from land sales. Each SAFER is controlled by a board of salaried directors, which includes representatives from the Agriculture Ministry and farmers' organizations (cooperatives and other farm groups). Their work is coordinated by a national federation. For the purpose of restructuring, they have the power to buy rural land, including areas of forest, and to resell it within a five year period. They are a major force in the land market, monitoring it closely with the aid of "land market observatories" which keep them uniquely well informed about the actual and possible movement of land and the value of individual plots. Land is acquired either through purchase on the open market or by exercising the right of "preemption", which gives the local SAFER the option of first refusal on any piece of land to be disposed of greater than 1 hectare. There is no right of compulsory purchase, although very large farms coming onto the market - those three times the locally defined size limit - are automatically bought and split up into medium-sized holdings.

The scale of SAFER operations has been impressive, with a total of 11 million hectares purchased between the time they were first created and 1978. With 87 thousand hectares purchased and 81 thousand hectares disposed of in 1978, SAFERS were responsible for 16.5 percent of all land transactions. Only 16 percent of acquisitions involved preemption and, of disposals, 40 percent were used to enlarge existing holdings and 30 percent were used to create new farms. SAFERs have directed much of their work at the creation of medium-sized farms, intended to be viable family businesses. Between 1960 and 1976, average farm size in France rose from 17 hectares to 25 hectares and the number of holdings of less than 10 hectares fell from .84 to .4 million. SAFERs have also invested substantial sums in infrastructure such as drainage and roads, and their involvement in the land market has been a stabilizing force, helping to keep prices down. SAFERs have encountered less hostility than the "remembrement" schemes, partly because they are more democratically organized and have been seen to assist the survival of many smaller holdings. On the negative side, they have been unsuccessful in the North, and they have sometimes been criticized for using inappropriate criteria for the selection of farms for improvement and being dilatory in enforcing size limits.

Amalgamation and Retirement Incentives

Farm amalgamation is influenced by a broad range of policies, including pricing, capital grants, land consolidation, and regional policy. However, it is quite common for farmers to be offered special incentives for the amalgamation, enlargement or modernization of their holdings and in some cases, in the EC for example, these are accompanied by retirement incentives, designed to increase the mobility of land. In certain countries such as France and Sweden, special intervention agencies are involved, and, in general their activities seem to have been more successful than where policies relying on grants, or subsidized credit. Bowler, who has reviewed the literature in this field, reports that the French SAFER and Canadian ARDA systems have been relatively ineffective in the more prosperous farming districts but, on the other hand, Sweden's Country Agricultural Boards have been an important factor in achieving structural change. However, he is guarded about the value of intervention agencies in general. "Most studies have shown that the volume of land handled by intervention agencies is relatively small compared with the total agricultural area or the number of farms in need of enlargement.

Nevertheless, the land taken in hand has been used to strengthen the stratum of middle-sized rather than larger farms." (69) Intervention agencies seem particularly appropriate in Europe, where high prices and other barriers to land mobility discourage structural change, but they have also been tried in Canada (the Saskatchewan Land Bank Program) and Australia (the Marginal Lands Scheme).

In Sweden, the Country Agricultural Boards appears to be operating successfully, guaranteeing 500 million Swedish Krone in loans for structural and technological improvements, including amalgamations, in 1978/79. (2) However, in France, SAFER activity seems to be slowing down, as mentioned previously. The growing doubts in France about the desirability of large farms are also seen in the new Danish legislation on size limits and the rather similar approach embodied in the Swedish 1979 Land Acquisition Act.

Whereas intervention agencies have been used quite frequently at the regional and local level, national measures to encourage amalgamation and enlargement have tended to rely on grants, subsidies and subsidized credit. This category includes two of the EC's principal structural measures Directives 72/159/EC and 72/160/EC. Directive 159 on farm modernization offers financial assistance for farmers undertaking six year development plans with the aim of improving their holdings to the extent that they are capable of generating an income comparable with local earnings in non-farm occupations. Approved investments are aided at the rate of 25 percent, either by capital grants, interest rate subsidies or loan guarantees and several conditions are attached. For example, part-time farmers are excluded and a development plan must be approved before any payments are made. The original intention was to aid the lower income farms and those in danger of slipping behind, and the Directive stipulated that although land purchase itself didn't qualify for a grant, holdings with a development plan should have first call on land made available through Directive 72/160. This Directive was intended to encourage elderly farmers to leave the industry and offered annual payments of between 600 and 900 units of account, one u.a. being broadly equivalent to one U.S. dollar at the time, to both farmers and farm-workers leaving the land. The EC's FEOGA undertook to reimburse Member States 25 percent of the cost of implementing this Directive - rising to 65 percent in areas with a large agricultural population, such as Ireland and most of Italy. In most cases, applicants were required to be between 60 and 65 and the land released on their retirement was meant to be either sold or rented for at least 12 years to a farmer with a development plan, or taken out of agriculture and transferred to an appropriate use.

In practice, neither of these Directives have been a great success and the Commission has proposed important modifications. Directive 160 has not attracted many farmers, about 36,000 between 1975 and 1977, who released only 532,000 hectares. Of the land released, only about 13 percent was taken up by farmers with development plans, partly because Member States did not apply the Directive in exactly the way the Commission intended and many farmers didn't give up any land. It is likely that those farmers who did participate in the scheme either managed to avoid releasing their land or were intending to do so anyway. Thus, the overall impact on land mobility was negligible. This failure, coupled with the usual difficulties encountered in acquiring land, has meant that the Directive has been "more or less synonymous with the

intensification of farming systems within the framework of existing farm structures". (5) A total of about 78,000 farm development plans were implemented between 1973 and 77, excluding Italy, with 25,000 approved in 1977, the last year for which figures are available. (5) The scheme has been most successful in Germany, Ireland and, more recently, the United Kingdom. However, it has had little impact on the poorest regions where it is now acknowledged, special measures are required. It has also tended to provide the greatest assistance to the middle-sized farms where structures have already been approved, and, in many cases, these farms have been able to produce considerably better than a "comparable income" by the end of the development plan. In 1977 nearly half the total number of development plans applied to farms of between 20 and 50 hectares, only 20 percent to those below 20 hectares. The scheme is now to be modified so that smaller farms with less prospect of yielding a comparable income can participate. One other aspect of the scheme is that a large proportion of participants have been dairy farms, and their growing output is directly contributing to surplus production.

Although the use of retirement incentives might appear to have considerable potential as a means of enlarging and amalgamating farms where this is needed, it seems to have had a rather limited impact in Europe. Farmers have generally found it more advantageous to retain control of their holdings or to pass them on to heirs, particularly as pensions and the other incentives offered have tended not to be generous. The largest and longest-running scheme in the EC has been in France, where it is called IVD ("Indemnite Viagere de Depart" or "Annuity for Life"), financed by a body called FASASA (social action fund for the restructuring of agriculture). Under this scheme, farmers aged 55 or more are offered a supplementary pension if they agree to retire and make their holdings available for structural improvement by offering them for purchase by a SAFER or for amalgamation with another farm.

Between 1960 and 1978 a very impressive quantity of land was redistributed in this way, amounting to about 10 million hectares almost a third of the agricutural land in France. A total of nearly 600,000 people have participated in this scheme which grew in popularity through the 1960's, attracting 70,000 farmers in 1970, which was the peak year. Retirement on this scale had a considerable effect; the number of farmers aged over 60 almost halved between 1968 and 1975; and, France now has fewer farmers over 65 than the EC average. However, since 1975, the numbers participating in the scheme has fallen sharply, because of changes in the age structure, the growing shortage of alternative work and the failure of pensions to keep pace with inflation and soaring land prices. The scheme has proved most popular in the poorer central, south-western and western areas, where farms are relatively small and the SAFERs have been particularly active. Bowler concludes that "the effects of FASASA have been very selective and often appear merely to finance farmer retirements that would have taken place in any event, although this is difficult to prove." (69) This is the most common criticism of retirement incentives and is probably accurate in many cases.

Capital Grants and Subsidized Credits

Many of the structural measures which have already described made use of capital grants, low interest rates, guaranteed loans, or some other form of

subsidized credit. Aid in this form is available for a variety of different purposes, including farm amalgamation, modernization, consolidation, the purchase of land and machinery and the development of forestry and other enterprises. Different countries favor their own particular form of aid. In the United Kingdom, capital grants are preferred but in most of the rest of the EC, interest rate subsidies and loan guarantees are far more popular. It is not entirely clear which system is most useful and efficient for any given purpose and this is a subject which merits further research. Subsidized interest rates are most conveniently administered through specialized agricultural banks, such as the Credit Agricole, and the lack of such institutions in the United Kingdom or United States would appear to be a barrier to their use. Interest rate subsidies are only available if a farmer borrows and this may be a cause of unnecessary indebtedness. On the other hand, capital grants in the United Kingdom may encourage excessive levels of investment in machinery and buildings and, in some cases, are paid to farmers who could easily afford to finance their own investments.

In Australia, structural change is largely governed by price policy, but special aids for farms have been available through the Rural Reconstruction Scheme, which became the Rural Adjustment Scheme in 1977. There has always been an emphasis on helping those farms which were facing difficulties as a result of prevailing prices, but were capable of being improved or expanded so as to become viable in the long-term. Fundamentally inefficient producers have not been encouraged to stay on the land. Initially, the scheme was chiefly concerned with debt reconstruction, with substantial sums being written off in an effort to improve the viability of selected farms. The creation of the Rural Adjustment Scheme (RAS) in 1977 brought together a number of specific forms of assistance, all of which rely on concessional credit. Loans are available for debt reconstruction, the amalgamation and enlargement of holdings and the improvement of existing holdings and there are special schemes for rural industries going through a period of depression and for farmers forced to leave the land. Terms are most generous for farmers having to sell out and leave and for those eligible for debt reconstruction. The most used form of aid in recent years has been credit for the "farm build-up", the amalgamation and expansion of smaller holdings, so as to create economically arable units. Between 1965 and 1978, the total proportion of agricultural credit channelled through government schemes rose from 34 to 56 percent. (2)

The most recent developments in Australia suggest that the newly created "Primary Industry Bank" (PIB) may take over many of the functions of the RAS. Total expenditure under RAS in the eleven months to May 1979 was down to A$29.2 million compared with A$38.7 million in the previous year. (2) With improved market conditions and now sources of credit available, applications for debt reconstruction fell by 43 percent, and for farm build-up assistance by 17 percent. The 1979/80 budget for RAS was subsequently cut to A$15.7 million. 13/ (2) The "Primary Industry Bank" was established in November 1978 and the OECD reports that in its first ten months of operation it had arranged loans to the value of A$ 120 million, generally on 15-20 year terms. (2) Agriculture is only one beneficiary of the PIB but the scale of

13/ For 1978 and 1979, the average exchange rate was 1.1447 and 1.1180 U.S. dollars respectively per Australian dollar.

the new institution suggests that it could play a major role in providing cheap credit. The provision of rural credit is also being stepped up in New Zealand where NZ $90 million 14/ has been allocated to the land development loans scheme, for the two years ending March 1981. (2)

A quick survey of subsidized credit in Europe reveals an enormous range of schemes aimed at individual farms, cooperatives, new entrants, and disadvantaged regions and other parties. EC Directives, such as 72/159, may give rise either to capital grants or to interest rate subsidies and each Member State makes its own arrangements for administering schemes, with both terms and eligibility tending to vary. Among the schemes in the late 1970's were loans at as little as 1 percent interest for relocating farmsteads in Germany, 4 percent over 30 years for family farms in Italy, 6.5 percent for 30 year loans for amalgamating farms in Denmark and 4.5 percent to 7 percent for purchasing land in France, repayable over 18-30 years. (43) Taken together, these loans to French farmers through the Credit Agricole amounted to FF 11.5 billion in 1979. (2)

A controversial scheme is the Dutch "Wet Investerings Rekeningen" (WIR) introduced in 1978, by the National Investment Account Act. The law provides special tax allowances for investment in nearly all sectors of the economy, including agriculture. For example, investment in new buildings qualifies for an allowance of 23 percent of the total cost but only 7 percent for new equipment and improvements such as breeding cattle and new orchards. Additional allowances are available in certain regions (20 percent for buildings) for small-scale projects and for those which create employment. Farmers can obtain a maximum allowance of 50 percent on buildings and 25 on other fixed investments. The scheme has proved unpopular with other Member States and has been attacked under the Rules of Fair Competition of the Treaty of Rome. (43)

One of the most telling criticisms of both grants and subsidies is that they tend to force up the price of agricultural land and, in some cases, lead to excessive expenditure on particular forms of capital equipment. In the United Kingdom, about 80 percent of total expenditure on agricultural buildings and fixed equipment is grant-aided and the policy has clearly stimulated the level of investment, which is high compared with other sectors of the economy. The Centre for Agricultural Strategy has argued that "the apparent lower productivity enjoyed by United Kingdom agriculture compared with a number of EC countries may be partly explained by an unduly high capital requirement per unit of output"' (6) They point out that "it is widely suspected that the existing structure of fiscal incentives has distorted farm investment so that excessive purchases of certain types of machinery are being made to secure a purely fiscal advantage". (69) More seriously, they question the assumption that assisting capital investment will lead to higher productivity, pointing out that the limited evidence available in the United Kingdom suggests that productivity may not have risen very much as a result of generous grant aid, particularly for buildings.

Supply Control and Direct Income Payments

Since the early 1970's, there has been a growing interest in supply control policies. There have been applied most frequently in the dairy and

14/ For 1979 and 1980 the average exchange rate was 1.0226 and 1.0166 U.S. dollars per New Zealand dollar.

cereals sector where they have achieved some success, although over-production remains a very serious problem, especially in the EC. The sustained rate of advance in agricultural technology is likely to increase the need for curbs on production and since governments are likely to be cautious about allowing prices to fall in real terms, there is likely to be a growing need for supply management in various forms. In some countries there is a general tendency for structural policies to favor small farms and producers in disadvantaged regions and other groups, especially in Scandinavian and Alpine countries.

Supply control policies are many and intricate, and are described briefly in the OECD's annual review of agricultural policies. In a recent edition, they summarize the dilemma facing the architects of such policies as: "There is often a fine line between controlling output, supply and stocks and at the same time shifting a structural surplus problem to another commodity and/or shifting surplus resources into other sectors thereby creating additional problems." (2) They go on to list the principal methods of supply control used in the OECD as; "aggregate production quotas (Finland, Switzerland, Canada), removing land from production (United States, Finland, Japan), taxes on inputs and outputs (Finland), size limits on animal production units (Finland, Sweden and Switzerland) and providing incentives for shifting production and resource use between commodities - a method employed by several member countries." (2) To this list should be added production levies, a device used to control milk production in the EC. Effectively levies depress producer prices and also provide funds to support the marketing of dairy products in the Community.

Most of these systems can be adapted to contribute to structural as well as supply control objectives. In Finland, Sweden and Norway, differential price systems are employed for some products, generally to the benefit of small producers. Dairying is especially affected, since surplus production is a common problem and small farmers play a large part in milk production in most OECD countries. It is often difficult for small dairy farmers to switch to other enterprises since geographical factors often preclude arable farming and most other livestock enterprises require more land in order to yield a similar income. Since the mobility of land tends to be low, it is difficult for farms to expand in the short term and thus the pressure to protect small dairy farms is particularly strong. In remote areas, such as the North of Sweden and the upper slopes of the Alps, the arguments in favor of protecting small and uncompetitive dairy farms carry additional weight. It is not surprising that the complex tapering price system applied in Sweden discriminates against large producers or that the non-marketing premiums paid in Switzerland are more generous to small producers.

Quotas are used to control milk production in several countries, but most notably in Canada. Quotas offer considerable opportunities to the structural engineer and it is obviously possible to design systems which favor small producers, large producers, or any other group. However, quotas are regarded with disfavor by most agricultural economists and it is generally agreed that the Canadian system is not a success. They are difficult to fix at the right level, as is demonstrated by the EC sugar quotas which have failed to prevent a surplus of 2 to 3 million tons in recent years. Political

resistance to reduced quotas is particularly fierce and they have not proved easy to administer or to enforce. They are likely to slow down the rate of structural change, and clearly can be used to shield inefficiency. It is frequently pointed out that quotas can prevent or postpone the departure of highcost producers, although this may be desirable from a structural point of view. For all their failings, quotas do have the merit of introducing a defined limit to production. When price cuts would not be acceptable they offer a possible alternative. The relative acceptability of quotas to many farmers opens the way to compromises and they are most likely to be adopted in countries where political palatability is a more important consideration than economic efficiency. For this reason there is a distinct possibility that they will be used to tackle the dairy surplus in the EC.

The EC currently makes use of a "Co-responsibility levy" which was set at 2 percent of the milk target price for 1980/81. This levy reduces the impact of increases in the milk price and is greatly resented by farmers but has the disadvantage of raising the price to consumers. The levy is a flexible instrument and can be used in a discriminatory fashion. At present, farmers in mountainous and less favored regions are eligible for certain exemptions, but proposals to totally exempt all very small producers have been strongly resisted. Other measures used in the EC include a non-marketing scheme which has just expired and a beef conversion scheme, which pays producers to switch from dairying to beef or sheep. It is thought that these schemes will have resulted in almost two million cows being slaughtered between 1977 and 1980, but the measures have proved expensive, have attracted many producers who would be leaving the sector anyway and have had only a small impact on surplus production. Over the last year, hundreds of milk producers in Scotland have been applying for a slaughter premium under one of these schemes although the country contains many of the largest dairy farms in the Community. The Scottish Milk Marketing Board are of the view that the premiums have been utilized mainly by large producers. In explanation, they point to the large capital sums involved and the relative ease with which large farms can switch to other forms of production. (65)

Although they are not yet used on a large scale, direct income payments would seem to offer a way of reconciling the need to control production with a structural policy sensitive to the requirements of the rural economy and environment, particularly in disadvantaged regions. Direct income payments consist of financial transfers which are not linked to a farm's level of production, although certain conditions may be imposed on the recipient. The payments may be tied to a particular farmer and terminated on his/her retirement, or they may be associated with a particular farm, if it is desired to maintain a given structure over a long period rather than as a temporary step. In either case, farmers do not have an incentive to increase their output, thus the tendency to exacerbate over-production is avoided and equally, there is no stimulation of unnecessary investments. Where appropriate, direct income payments can be linked to defined social and environmental objectives. However, such payments would be expensive if paid to a substantial group of farmers over a long period and are not popular with the farming community.

Direct income payments have been tried on a small scale in Italy, and are now being seriously contemplated in Switzerland. In Switzerland,

area-based grants have been the main focus of attention, especially in relation to dairying. For example, Binswanger has proposed that a grant based purely on acreage, irrespective of crop, could be supplemented by a price policy designed to stimulate the necessary volume of output. (70) In the United Kingdom, a system of negative income tax has received some discussion. This would consist of a payment supporting the earnings of low-income farmers, and would replace most other forms of price support and grants, allowing the market to determine commodity prices. In the United Kingdom where the number of farmers is relatively small, the administration of such a scheme might not present too many difficulties, but clearly administrative costs are a factor to be considered, especially in countries where small farms are very numerous.

COOPERATIVES IN WESTERN EUROPE

Agricultural cooperatives have a long tradition in many countries of the EC. Often initial action to form cooperatives was taken in order to coordinate the purchase of inputs, to improve credit facilities, or to arrange coordinated sales of specific products. In Eastern Europe and the USSR, the movement of agricultural producer cooperatives has developed in a qualitatively different context, but in Western Europe and Scandinavia producer cooperatives, which farm land cooperatively, play a marginal role, while marketing cooperatives are by far the most important type. Supply cooperatives for feed, fertilizer and other inputs and credit cooperatives are also significant in some countries.

Cooperatives were originally distinguished by their nonprofit character and the principle of democratic control of the organization by its members. However, over time the structure of cooperatives has been strongly influenced by the trends towards a more specialized and vertically integrated agricultural industry and the growth of food processing. The increasing concentration of the industry and the emergence of large vertically integrated firms dominating the processing, wholesale and retail sectors, act to the detriment of the conventional type of family farm. Marketing cooperatives offer a means of overcoming the disparity between the traditionally dispersed farming sector selling agricultural products and the increasingly concentrated wholesale and processing sectors; they also offer scope for farmers to integrate vertically. There has been a general evolution in the structure of agricultural cooperatives from a large number of separate, simply structured local organizations to fewer and more complex regional or national organizations. (71) These larger structures have taken on not only purchasing and selling but also processing and other services and even research and development in some cases. This trend has created some conflicts with the original cooperative principles, as the management needs of big vertically integrated cooperatives are difficult to reconcile with control by the member farmers, and there is an increasing discrepancy between the needs of the organization for investment capital and the ability of the member farmers to subscribe the necessary funds. Conflicts also occur because the rational management of the cooperative does not always coincide with the right of the members to sell all their produce to the cooperative. Vertical cooperation using contract production is another source of conflict since it can reduce the farmer's entrepreneurial role and therefore the self-help nature of cooperation. Nevertheless the cooperative structure in principle offers a means for farmers to improve their bargaining position, spread risks, reduce

distribution costs and remain competitive as the agro-industrial sector becomes more specialized and complex.

The overall share of cooperatives in marketing and processing in European countries is substantial. In France and Germany cooperatives make 53 percent of all agricultural sales and purchases; in Sweden they have a 46 percent share of total production in the food processing industry; and in Spain they contribute 10 percent of total agricultural production. Their importance varies between specific products. In the marketing and processing of milk, the cooperatives' share is between 90 and 100 percent in Denmark, Finland, Ireland, Norway, Sweden and Switzerland, 78 in the Netherlands and the West Germany, and over 50 percent in France and 3 percent in the UK. Fresh fruit and vegetables is another important field - the share is 40 to 80 percent in Belgium, Denmark, and the Netherlands (72). (Table 7 and figure 1). Cooperative marketing offers particular advantages for perishable products and products such as slaughter animals, cereals, cotton and sugar beets which have to undergo some basic form of processing before entering the market and where producers faces greater difficulty in obtaining a fair price for these products if he is left to himself.

Producer cooperatives are much less widespread than supply and marketing cooperatives. Where they have become established, as in the south of Italy, Greece, Ireland, and the Western Isles of Scotland, there is no uniform model, they all differ and depend for their character on local social, political and historical factors.

The character and functions of the cooperative sector varies considerably from country to country. (71) In Denmark, nearly half of the supply of feed and fertilizers to farms is handled by cooperatives, which are in the process of merging into a single national chain. In Norway agricultural marketing cooperatives developed a country wide distribution system for fresh food in the post war period, but in the 1970s the grocery wholesalers made strong inroads into the cooperative sectors' share. In Sweden farmer cooperatives have been of dominating importance since the 1930s - accounting for all of the dairy business and 60 percent of the farm supply business. In the United Kingdom agricultural cooperatives are relatively undeveloped. Several factors have been unfavorable to cooperatives - especially the cheap food policy of successive governments, the domination of potential marketing areas by the statutory Marketing Boards, price guarantees for farm produce and the existence of the Cooperative Wholesale Society, a strong consumer cooperative. Farmers in the United Kingdom have been more inclined to look to statutory boards than to voluntary cooperatives as a means of solving their marketing problems.

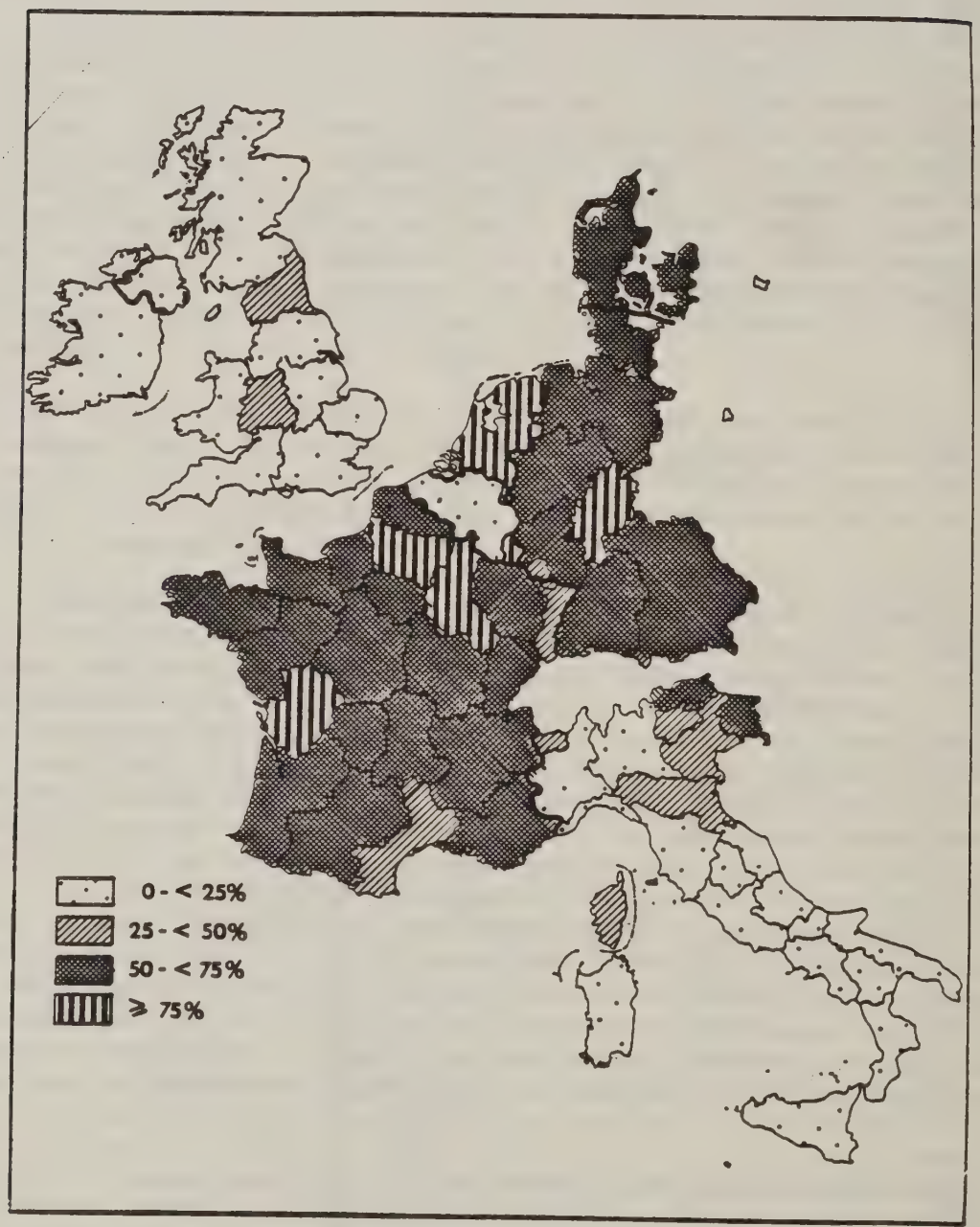
The role of government aid to the cooperative sector varies by country. In most countries the marketing activities of cooperatives are supported, as part of national policies to maintain the bargaining position of domestic producers in agricultural markets. In the United Kingdom there is grant aid for capital investment by farm cooperatives, with priority given to marketing. The level of EC grants to European cooperatives through FEOGA is modest - about f70m pounds sterling in 1978. (73) In countries with little or no development of cooperative marketing, there is a case for government aid to promote its development through the provision of advisory assistance,

Table 7: Proportion of EC agricultural produce sold through cooperatives in 1978

Commodity	Country								
	1/ West Germany	France	Italy	Netherlands	Belgium	Luxembourg	United Kingdom	Ireland	Denmark
Pork	23	1/52	3	27	10		7	24	91
Beef and veal	22	1/20	5	18	0		6	33	60
Poultry meat		42	10	10	0	NA	2	46	50
Eggs		25	5	21	0	30	19	25	59
Milk	79	48	35	87	65	90	0	58	87
Sugar beets		2/17	15	16	0	NA	0	0	14
Cereals	52	67	15	60	15	74	15	24	50
All fruits	33	40	50	0-5	40	10	19	12	65
All vegetables	38	30	5	0-5	55	0	10	26	65

1/ Including producer groups.
2/ Processed into sugar and alcohol.
NA = Not available.
Source: The Agricultural Situation in the Community, 1979 Report. Brussels-Luxembourg, January 1979.

Figure 1: Percentage of EC farmers who are members of cooperatives, 1975



Source: EEC. The Agricultural Situation in the Community, 1979 Report, Brussels-Luxembourg, January 1980.

training, financial guarantees and tax credits. In market economy countries where cooperatives are already well developed, governments generally limit themselves to a passive role and leave the cooperatives to the competitive forces of the market. A flexible legislative framework is desirable to facilitate a wide choice of organizational structures.

CONCLUSIONS

In making a brief and rather selective survey of structure-related measures, it has been possible to get a sense of the difficulties encountered in formulating structural policy, but not to arrive at any neat conclusions. Explicit structural measures comprise only one part of the pantheon of public policies which act to shape farm structures, and it is extremely difficult to assess the impact of individual measures. Indeed, it is often hard to distinguish between the effects of legislation and the impact of the market and other forces influencing the development of agriculture. Few policy measures have been adequately monitored or independently assessed and even the most learned commentaries often have a distinctly impressionistic flavor in parts. However, a few points stand out:

1. The structure of agriculture in most other OECD countries is markedly different from the United States even though many of the most notable changes are in a similar direction.
2. In almost every OECD country, including Canada and those in Australasia, there is a very strong committment to the "family farm", which runs through all structural policies. Definitions of the "family farm" differ but the United States will find itself in an increasingly unique position if the growth of corporate farming continues.
3. Structural adjustment measures are used to supplement price policy in nearly all OECD countries. There is a delicate balance between encouraging structural change and attempting to cushion it, and for the most part overall policy objectives are not specified precisely. Although there is much emphasis on the efficient use of resources in written statements, frequently this has not been a priority in practice. Most expenditure on structural policy serves to counteract and modify market forces which left to themselves, would have effected a drastic "rationalization" of farm structures in many OECD countries.
4. Structural measures are becoming increasingly enmeshed with supply-control policy, which is becoming more widespread, especially in those sectors in which structural surpluses have arisen.
5. Traditional structural measures have proved ineffective instruments of regional policy in most countries. Measures applying specifically to remote, mountainous and disadvantaged regions are becoming increasingly common and show signs of being more successful.
6. Increasingly, structural policies are being seen in the context of rural economies as a whole, and the need to integrate agriculture with other activities is starting to be recognized.
7. Structural policies as a whole are still orientated towards an orderly transfer of the farm work-force into other sectors. However, the recession in most countries has slowed the exodus from the land and many of the more affluent countries are becoming cautious about promoting a further depopulation of rural areas. In some regions, the agricultural work force is being offered considerable incentives to stay where it is.

8. Part-time farming although largely ignored by policy makers has become a major factor in the evolution of farm structures.
9. Spiralling land prices have been experienced by most OECD countries and grants and subsidized credit to agriculture have contributed to the upward pressures. Very recent measures introducing restrictions into the land market have been the only ones visibly to dampen this process.
10. The number of countries adopting size limits and measures restricting "farmland to farmers" is growing.
11. Foreign ownership of land is very limited in most OECD countries. Institutional ownership is still rare, but farmers are becoming increasingly dependent on off-farm credit.
12. Subsidized credit and other aids to new entrants are widespread in the OECD, but they have often fallen behind the increase in land prices.
13. Fiscal policies have not inhibited the expansion of farm size to any great extent and the relatively heavy capital taxation applied in Europe has not prevented the growth of large farms.
14. Price policy is a crude instrument of structural change.
15. The relationship between farm size and efficiency is complex and it is not clear whether heavy investment in buildings and machinery, subsidized in many cases, produces a worthwhile increase in productivity.
16. The mobility of farm land and labor is generally low in the OECD countries reviewed and to raise it, more vigorous structural policies or different price levels would be required.

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